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A SUMMARY REPORT ON THE EFFECTS OF DREDGING, DREDGED SPOILS DISPOSAL AND LAKEFILLING ACTIVITIES ON WATER QUALITY IN THE TORONTO WATERFRONT MARCH 8 - NOVEMBER 13, 1981

January, 1983

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Ministry of the Environment

The Honourable
Keith C. Norton, Q.C.,
Minister

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Deputy Minister

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January 1983

by

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SUMMARY

A water quality study was conducted in an area of the Toronto waterfront between the Toronto Island and R. C. Harris water filtration plant intakes (Figure 1) from March 8 to November 13, 1981. It was found that short-term effects (as indicated through water quality sampling) of dredging at the Keating Channel, and dredged spoil disposal and lakefilling at the Headland (Leslie St. Spit) were localized and did not lead to any adverse effects on Toronto waterfront water quality or drinking water supplies.

1. Effects of Dredging on Water Quality

Dredging did not elevate concentrations of nutrients, bacteria, heavy metals, organochlorine pesticides or PCBs in the water adjacent to the dredging activity to above those concentrations found upstream in the Don River (removed from the influence of dredging activity). However, some local elevation may have resulted from resuspension of contaminated Don River sediment.

Dredging did result in a slight increase in turbidity and suspended solid levels in the immediate vicinity of the dredge with a mean turbidity of 9.2 FTU compared to 7.2 FTU at the upstream station in the Don River (see Table 2). Mean suspended solid levels for the dredge site and Don River stations were 29.3 mg/L and 23.2 mg/L respectively with an Inner Harbour median of 3.0 mg/L (Figure 1 and Table 3).

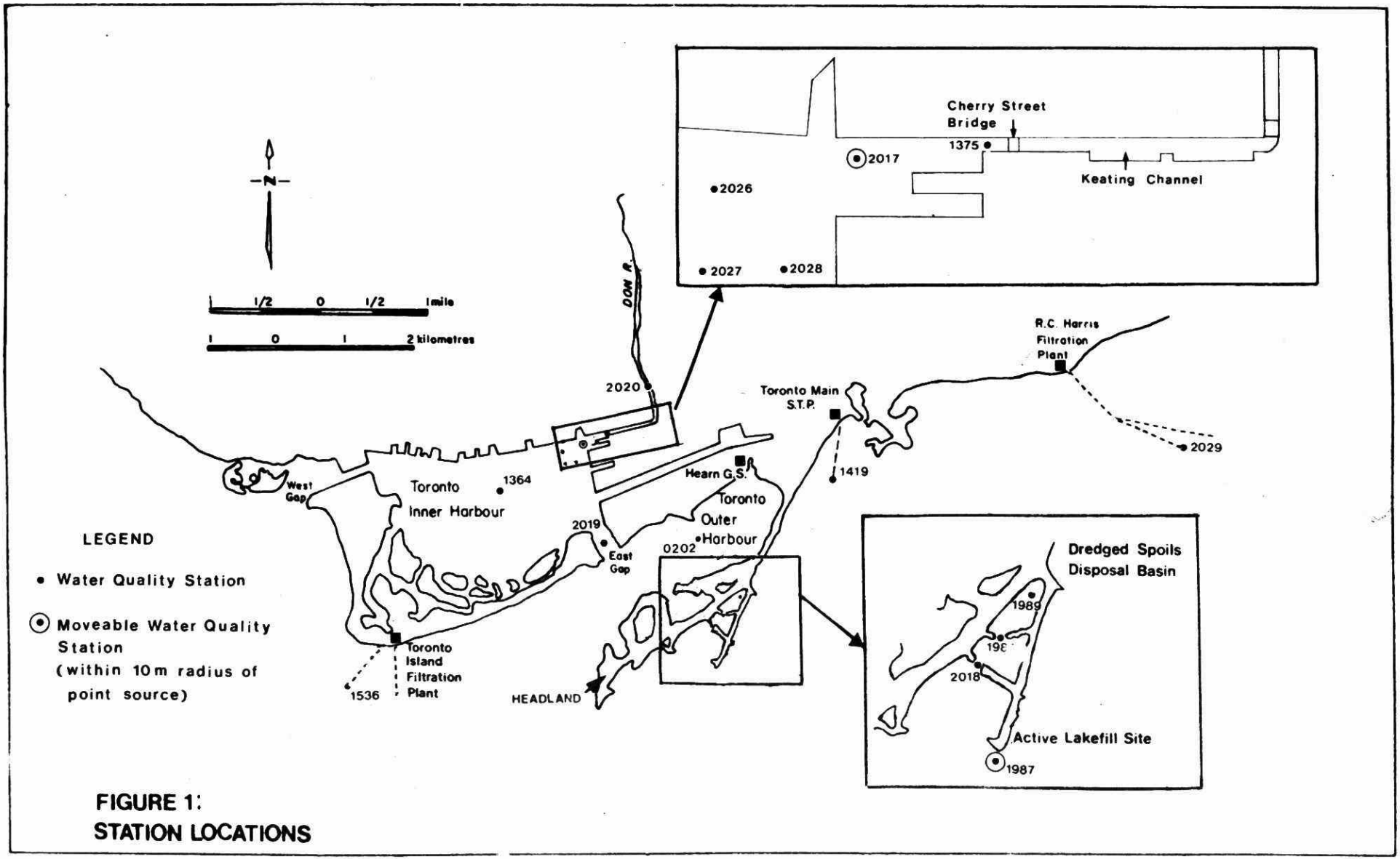

FIGURE 1:
STATION LOCATIONS

2. Effects of Dredged Spoils Disposal and Lakefilling on Water Quality

The proximity of the dredged spoil disposal and lakefilling sites may have resulted in some mixing of turbidity plumes from the two sources. However, the relatively low turbidity and suspended solids levels at the mouth of the dredged spoils disposal basin (Figure 1) (i.e. mean turbidity of 2.6 FTU, mean suspended solids 5.0 mg/L) and airphoto information suggest that the effect of dredged spoils disposal on turbidity and suspended solid levels was generally confined to the first dredgeate embayment located at the Headland where the actual disposal took place. Photographic evidence suggests that turbidity in the second Headland embayment resulted from resuspension of lakefill material in addition to any limited introduction of dredged spoil material from the first embayment. There was no indication that the dredged spoils disposal resulted in significant introduction of nutrients, bacteria, heavy metals, organochlorine pesticides or PCBs to the adjacent waters.

Turbidity at the mouth of the Headland disposal basin, coupled with the higher levels resulting from Headland construction (using trucked lakefill) contributed to plumes of elevated turbidity which extended up to approximately 1.5 km under high wind (greater than 20 km/hr) conditions. Near surface (1.5 m) turbidity levels of 10 FTU's or greater were common in the immediate vicinity of the active lakefill site and were surpassed in magnitude only by levels measured at the dredge site. Suspended solid concentrations in the vicinity of the active lakefill site ranged from less than 1 mg/L to 88 mg/L with a median of 9.0 mg/L, well below the 80 mg/L level considered unlikely to support good freshwater fisheries (Ontario Ministry of the Environment 1979).

The lakefilling activity contributed to virtually no increases in nutrient or bacteria levels. Although PCBs and certain organochlorine pesticides were detected occasionally (typically in 1 of 30 to 35 samples) in the vicinity of the lakefill site and near the Main STP outfall, the frequency of detection and concentrations were too low to establish lakefilling as the cause of such occurences. The detection of heavy metals near the lakefill site could not be attributed directly to construction of the Headland since they were detected at similar frequencies and levels over the entire study area.

3. Quality of Drinking Water Supplies

Sampling of untreated water at the R.C. Harris filtration plant was undertaken during the spring only (March 8 to May 20) and provided no evidence that dredging or lakefilling related activities had any adverse effect on drinking water supplies. Values for those parameters analyzed did not exceed the proposed revised Ontario Drinking Water Objectives. Comparison of the untreated water with the Provincial Water Quality Objectives for the protection of aquatic life and recreation (Ontario Ministry of the Environment 1978), as a means of assessing effects on beneficial uses other than drinking water, revealed one exceedance in twenty-four samples for phenolics (2 ug/L), copper (6 ug/L), and PCBs (50 ng/L).

Although in-plant sampling was discontinued throughout the fall and summer, in-lake sampling over the intakes for the Island and R.C. Harris filtration plants indicated that nutrient, bacteria, turbidity, and suspended solid levels at these locations were the lowest in the study area. With the exception of hexachlorobenzene (HCB) and isomers of hexachlorocyclohexane (BHC), no PCBs and organochlorine pesticides were detected at the these stations. Heavy metals, HCB, and BHC were detected at these lake stations at frequencies and levels characteristic of the Lake Ontario background (Great Lakes Water Quality Board 1977). There were no exceedances of the proposed revised Ontario Drinking Water Objectives.

1982 PROGRAMS

The following surveillance programs were initiated during 1982 to follow through from the 1981 surveys. They were designed to monitor drinking water supplies and nearshore water quality during "worst case" conditions (i.e. thermal bar, high precipitation, high wind) and to assess waterfront sediment quality.

1. Filtration Plants Survey (May 1982)

The formation of a nearshore thermal bar during the spring tends to prevent the offshore dispersion of discharges to the lake. Sampling of raw and finished water was conducted throughout May at the R.L. Clark, Island, R.C. Harris, and Easterly filtration plants during offshore movement of the thermal bar to assess the effects on drinking water quality. Sampling at the Island and R.C. Harris plants after a severe storm was also undertaken during this survey.

2. Ashbridges Bay Survey (June 1982)

This survey was undertaken to assess the relative effects of effluents from the Main Toronto Sewage Treatment Plant (STP), storm sewers, and combined sewer overflows discharging into Ashbridges Bay. Emphasis was placed on determining the areal extent of plumes associated with these discharges and quantifying the relative loadings of various contaminants into the area during wet and dry conditions.

3. Toronto Waterfront Dredging and Lakefilling Plume Studies (Fall 1982)

This program, which commenced in September 1982, was designed to determine the extent of turbidity plumes associated with dredging at the mouth of the Keating Channel, and dredged spoil disposal and lakefilling at the Headland, and to assess the status of contaminants within the plumes under "worst case" conditions. The study involved aerial inspection of turbidity plumes followed by water quality sampling for bacteria, nutrients, metals and organic trace contaminants. Limited sampling of suspended solids within each plume was undertaken, as well as the collection of similar in-plant samples at the Island (while in operation) and R.C. Harris filtration plants, and the Main Toronto STP. Water quality samples were also taken in the Don River, the Inner Harbour, and in the open lake near the R.C. Harris and Island filtration plant intakes.

4. Toronto Waterfront Sediment Survey (September 1982)

This program was designed to investigate and document the Toronto nearshore sediment quality over an area from Highland Creek to Etobicoke Creek (excluding the Toronto Inner Harbour). Increased emphasis has been placed on sediment quality analysis as contaminant concentrations in sediment are generally greater than in water (i.e. more readily detectable), and as the transport of contaminated sediment has the potential to result in long-term distribution of contaminants.

Sampling was designed to assess the movement of sediment from the Headland as the result of lakefilling operations and to determine locations within the study area where fine-grained sediments have accumulated. The survey will also provide insight into long term sediment movement within the nearshore zone of the Toronto waterfront.

5. Nearshore Dispersion of Multiple Inputs

An ongoing assessment is under way to define the movement of contaminants within the nearshore zone of the Toronto Waterfront from such potential sources as rivers (Mimico Creek, Humber River, Don River), sewage treatment plants (Humber STP, Toronto Main STP), storm sewers, combined sewer overflows, dredged spoil disposal (Headland embayment), and lakefilling activity (Headland construction).

I INTRODUCTION

In 1981, the Great Lakes Section of the Ontario Ministry of the Environment (MOE) continued its study of the Toronto waterfront aimed at assessing the water quality impacts of (a) dredging the Don River mouth and the Keating Channel; (b) disposal of dredged spoils into a semi-confined embayment located at the Headland; and (c) lakefilling at the Headland using fill from excavation sites (a more detailed discussion of these activities is presented in Section III of this report).

This study was designed primarily to assess the short-term effects of these activities on water quality through comparison with the Ontario Ministry of the Environment's (MOE's) Provincial Water Quality Objectives (PWQO) for the protection of aquatic life and recreation (MOE 1978). Water quality samples collected over the Island and R.C. Harris filtration plant intakes were also compared to the proposed revised Ontario Drinking Water Objectives as a means of highlighting potential direct impacts on water supply. Although direct comparison with the proposed revised DWO has been made it is important to note that water which meets the PWQO will meet criteria for other beneficial uses, including drinking water supply, for all parameters investigated in this study.

The scope of this survey was restricted to:

1) investigating the contribution of turbidity, heavy metals, organochlorine compounds and associated parameters from dredging, dredged spoils disposal and lakefilling;

2) comparing contaminant levels near potential sources with levels along the rest of the waterfront;

3) limited monitoring of the "raw" water at the R.C. Harris filtration plant;

4) investigating the areal extent of turbidity plumes by means of aerial surveillance and secchi depth transects.

The information presented and discussed in this report, which updates information presented in previous publications (Griffiths 1980, Griffiths and Winiecki 1981), was collected over the period March 8 to November 13, 1981. A complete data set of all water quality results generated by this study is presented in Appendix A.

II DESCRIPTION OF THE STUDY AREA AND SURVEY DESIGN

Study Area

The area under study extends from the Toronto Island filtration plant intake in the west to the R.C. Harris filtration plant intake in the east and encompasses the Toronto Inner and Outer Harbours and an area off the Headland (Fig. 1).

The Toronto Inner Harbour receives discharge from the Don River and a number of storm and combined sewer overflows. The only direct input to the Toronto Outer Harbour is the cooling water discharge from the R.L. Hearn generating station which draws cooling water from the Inner Harbour. Water exchange between the Inner Harbour and Outer Harbour/Lake Ontario takes place through the eastern and western gaps and via the water discharge from the generating station. A net inflow of water to the harbour normally occurs through the western gap and a net outflow through the eastern gap and the R.L. Hearn generating station. The Toronto Main sewage treatment plant (STP) discharge represents a major input to Lake Ontario in the area northeast of the Headland with an average annual discharge of approximately 10 m^3s^{-1} compared to approximately 5 m^3s^{-1} for the Don River.

Survey Design

The scope of the 1981 survey was expanded from that of the previous year to include a more comprehensive assessment of water quality in plumes generated by the dredging, dredged spoils disposal and lakefilling activities. This was accomplished by a) increasing the number of samples obtained at each station b) analyzing for a more extensive set of organic trace contaminants, and c) introducing aerial surveillance.

Two elements of the 1980 study plan were deleted. First, the 1981 study plan eliminated in-plant summer and fall raw and finished water monitoring at the nearby water filtration plants (although spring sampling of raw water was completed). This decision was based on the results of the 1980 study which found no evidence to suggest that dredging, dredged spoil disposal or lakefilling activities affected the quality of drinking water at these plants. Second, sampling of trucked fill was suspended since it was the focus of a separate study (Environment Canada/MOE 1982), and dredgeate sampling was discontinued because an adequate set of recent data was available (MOE 1980, Golder Associates 1980).

Water Quality

Prior to lake monitoring by vessel, indirect lake sampling was carried out through the R.C. Harris water intake. Raw water sampling at the R.C. Harris filtration plant was undertaken from March 8 to May 20, 1981 at which time conventional in-lake monitoring was initiated. Since results of this early spring intake sampling program supported the 1980 surveillance results and showed no grounds for concern, the intake monitoring program was not continued through the summer and fall. All effort was then directed to in-lake monitoring.

Sixteen stations were monitored as follows (Figure 1):

Don River/Keating Channel:
- 2020 (500m upstream from the Lakeshore)
- 1375 (Cherry St. bridge)
- 2017 (moveable station at dredge site)

Inner and Outer Harbour;
- 2026,2027,2028 (near mouth of Keating Channel)
- 1364 (historical Inner Harbour background)
- 2019 (Eastern Gap)
- 202 (historical Outer Harbour background)

Headland:

- 1989 (scow dumping site)
- 1984,2018 (1st and 2nd embayment gaps)
- 1987 (moveable station at active lakefilling site)

Lake Ontario Nearshore:

- 1536 (over Island filtration plant intake)
- 1419 (over Main STP outfall)
- 2029 (over R.C. Harris filtration plant intake)

Intensive water quality sampling was carried out at the above stations twice weekly (weather permitting) from May 20 to November 13, 1981. At each of the stations, secchi depth, temperature and dissolved oxygen measurements were obtained and surface (1.5 m) water samples were collected for analyses of turbidity, heavy metals, PCBs, organochlorine pesticides, bacteria and nutrients (see Appendix A for complete listing).

In addition, turbidity plumes originating from the dredging, lakefilling and dredged spoils disposal sites were delineated once a week (weather permitting) through secchi depth measurements conducted over a flexible grid of 10-20 stations, depending on plume configuration. The turbidity plume assessment was supplemented by four overflights which were used to obtain oblique, colour photographs of the study area.

III DREDGING, DREDGED SPOILS DISPOSAL AND HEADLAND CONSTRUCTION ACTIVITIES

(i) Dredging and Dredged Spoils Disposal

Until the fall of 1981 no routine maintenance dredging of the Keating Channel (that part of the Don River east of the Cherry Street bridge and west of the river bend, Fig. 1) had taken place since 1974 when, based on the results of previous analyses of Keating Channel sediments, MOE concluded that this material was unsuitable for open water disposal. In 1979 construction of a disposal basin was started at the Headland (Fig. 1) consisting of an endikement with a 62 m gap (to permit entry of the tug and scow transporting the spoils) and a sill (a submerged ridge to prevent migration of the deposited material). The first dredgeate embayment (first cell) was completed in 1980 and a second, similar embayment (second cell) was completed by June 20, 1981.

Between April 13 and October 4, 1981, dredging west of the Cherry Street bridge in the northeastern corner of the Toronto Inner Harbour (Fig. 2) was carried out for navigational purposes by the Toronto Harbour Commission (THC) using a clam shell dredge. The dredgeate was loaded into a bottom dump scow which was towed to the northerly half of the first (innermost) cell. Dredging was undertaken in the Keating Channel east of Cherry St. (Fig. 2) over the period October 5 to December 11, 1981.

Throughout 1981 an estimated total of 102,875 m^3 of dredged material was deposited inside the first cell (according to THC operating report summaries). This represented a substantial increase over the estimated 43,045 m^3 for the previous year (dredging in 1980 was confined to west of the Cherry St. bridge) and constituted the single greatest dredging effort since 1969 when a total of 143,126 m^3 of dredged spoils material was deposited at the Headland in front of the advancing fill face.

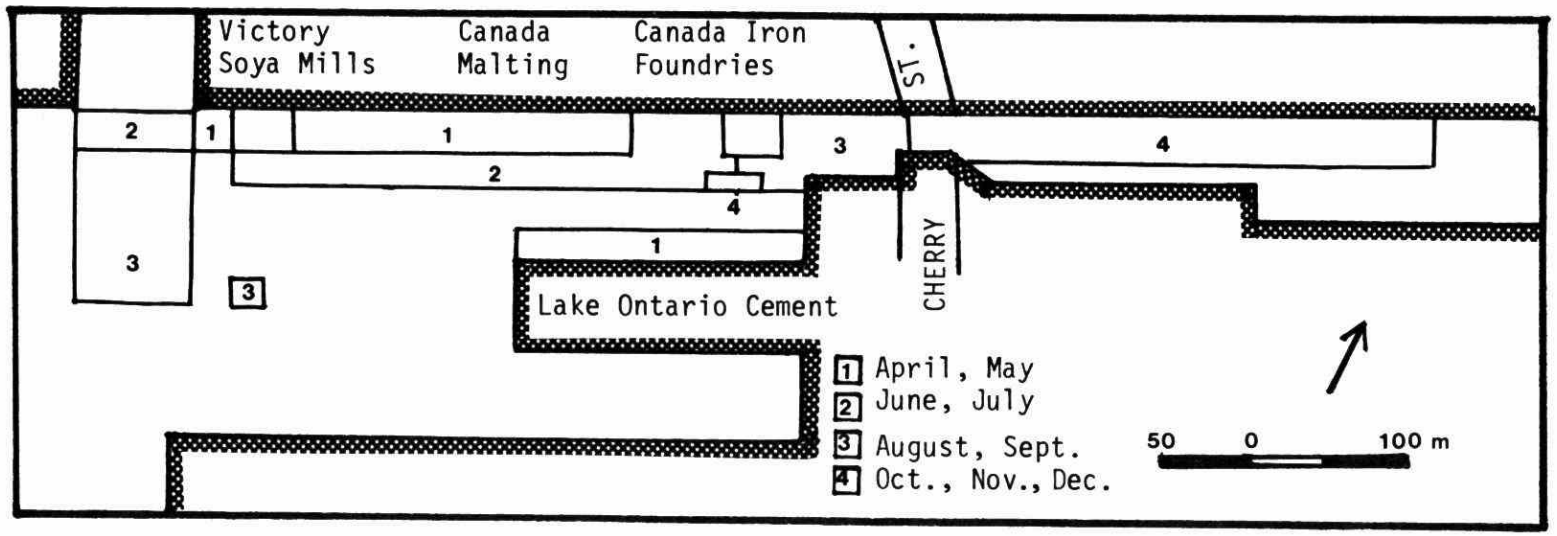

FIGURE 2 1981 Dredging Locations at the Mouth of the Keating Channel

(ii) Headland Construction

The Toronto Harbour Commission began the construction of the Headland (also known as the Leslie St. Spit or East Headland) in the late 1950's. To date, over 18 million cubic meters of trucked fill and dredged material have been used to construct the Headland's 185 hectares (including Aquatic Park) extending approximately 5 kilometres into Lake Ontario. Construction activities are continuing and have now entered a phase of shoreline re-alignment with the creation of a series of dredgeate cells or embayments along the Headland's southeastern side.

The first (most northerly) cell with a capacity of 280,000 m^3 was completed in 1980 and was followed by construction of a second cell with a capacity of 530,000 m^3. During the March-November 1981 study period, active lakefilling at the Headland was restricted to the completion of the second cell and partial construction of a third cell with an ultimate capacity of 2,200,000 m^3 (Fig. 3). Throughout 1981, a total of 3.5 hectares of land were created at the Headland using an estimated 1,438,131 m^3 of excavated trucked fill, approximately 40% more material than was used in 1980 for Headland construction.

Lakefilling at the Headland is continuing. Measures employed by THC to control erosion consist of (a) selective placement of coarse material at the lakefill site (mixing and protection), and (b) institution of certain "storm weather" procedures when high waves are forecast. Under storm conditions, the active fill face is protected with rubble, and fines are placed either in the lee of the endikement under construction, or in the southeast corner of the Outer Harbour. Construction details are described in a Toronto Harbour Commission's report published in December 1980 and entitled "Operating Procedures, Waste Disposal Site at South Side of Leslie St. Spit".

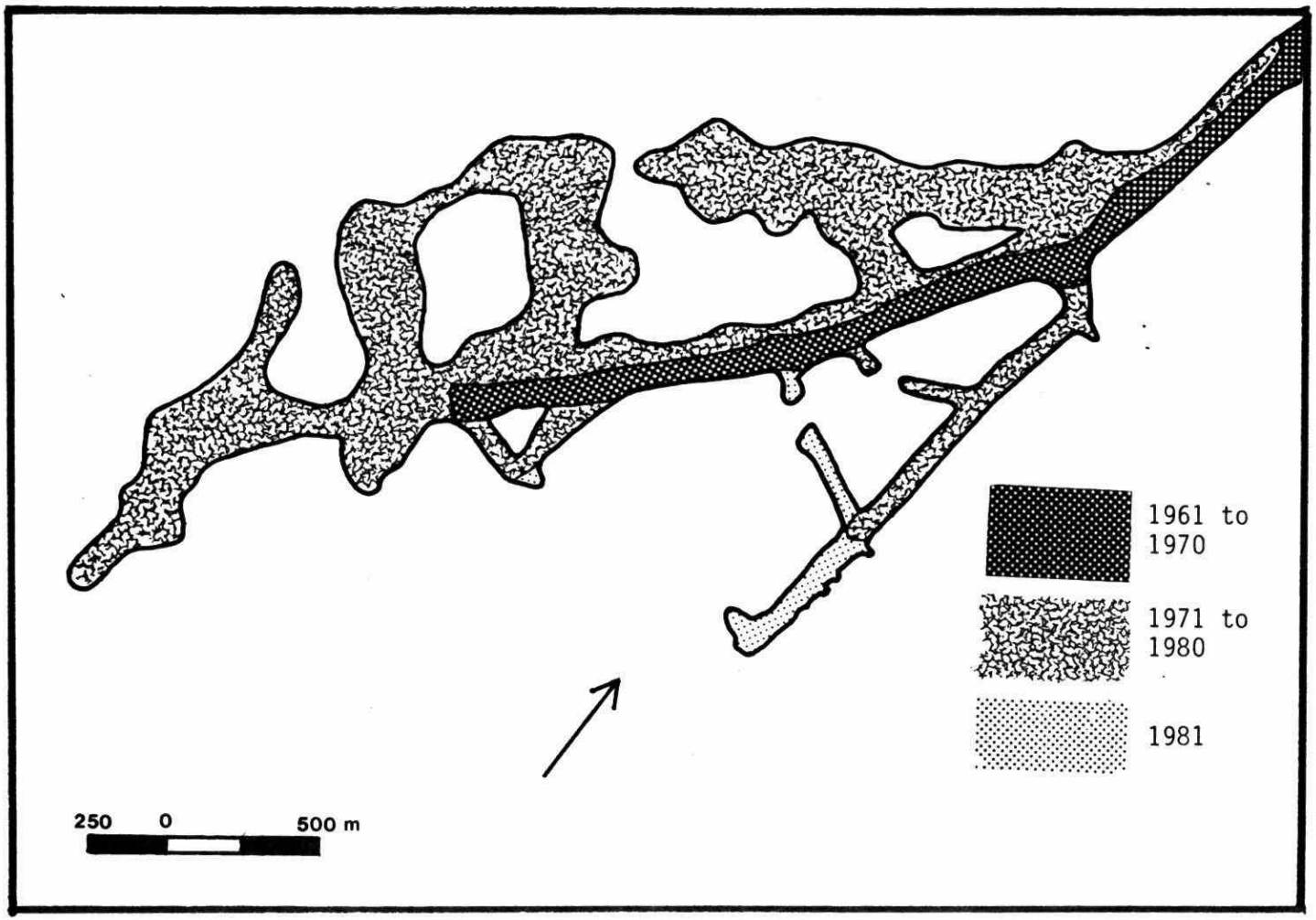

FIGURE 3 Lakefilling at the Eastern Headland

IV WATER QUALITY ALONG THE TORONTO WATERFRONT DURING 1981

(a) Data Analysis

Water quality data collected during this study were summarized into two sets: (a) R.C. Harris raw water (March 8 - May 20, 1981) and (b) in-lake sampling (May 20 - November 13, 1981). The in-lake data were analyzed by comparing values at the dredging, dredged spoils disposal and lakefilling sites with those near the Island and R.C. Harris filtration plant intakes and the Main STP outfall.

The impact of dredging on water quality in 1981 was determined by comparing concentrations of the various parameters measured at the moveable dredging site (stn 2017) with those at a fixed control station (2020) situated in the Don River approximately 500 m upstream from the river bend at Lakeshore Road. Since the distance between the dredging and Don R. stations necessarily changed between sampling, and since the magnitude and extent of any water quality gradient between the Don R. and the Inner Harbour are likely to be highly variable and dependent on river flow, loadings to the Don R., and seiches, a quantitative comparison was deemed inappropriate. For the purposes of this report, the impact of dredging was considered potentially significant if concentrations at the dredging site exceeded those at the control location.

Wherever applicable, water quality results were compared to the Provincial Water Quality Objectives (PWQO) (MOE 1978). In instances where the analytical detection limits were higher than the PWQO (e.g. PCBs) only numbers at or above detection were considered to exceed the PWQO with certainty. In cases where the PWQO were established on the basis of more than one compound (e.g. DDT and metabolites), assessment of PWQO violations was undertaken by adding only those values greater than detection.

Mean values have been presented in the summary tables that follow except in cases where one or more sample results were below the MOE laboratory levels of detection in which case the median was determined.

TABLE 1: R.C. HARRIS SPRING 1981 SUMMARY RAW WATER

PARAMETER	N	N above detection	N above PWQO	Max.	Min.	Median	Mean	PWQO
Turbidity (FTU)	24	24	-	2.80	0.38	0.62	0.98	-
Total Phosphorus (ug/L)	23	23	-	30	13	15	16	20 (guideline)
Hardness ($CaCO_3$) (mg/L)	24	24	-	128	108	115	117	-
Ammonium (ug/L)	23	23	-	96	4	12	16	Variable
Nitrates (ug/L)	23	23	-	455	210	365	350	-
Phenolics (ug/L)	24	1	1	2	LD	LD	-	1
Arsenic (ug/L)	24	6	0	1	LD	LD	-	100
Cyanide (ug/L)	24	0	0	LD	LD	LD	-	5
Magnesium (mg/L)	23	-	-	8.5	6.5	8.0	7.7	-
Calcium (mg/L)	23	23	-	38.0	30.0	35.0	32.8	-
Chromium (ug/L)	24	1	0	9	LD	LD	-	100
Filtered Mercury (ug/L)	7	2	0	0.05	LD	LD	-	0.20
Selenium (ug/L)	24	0	0	LD	LD	LD	-	100
Copper (ug/L)	24	17	1	6	LD	3	-	5
Iron (ug/L)	24	24	0	14	6	30	34	300
Lead (ug/L)	24	1	0	3	LD	LD	-	5-25
Zinc (ug/L)	24	24	0	9	LD	2	-	30
Beryllium (ug/L)	24	1	0	1	LD	LD	-	Variable
Cadmium (ug/L)	24	1	0	0.2	LD	LD	-	0.2
Nickel (ug/L)	24	4	0	4	LD	2	-	25
PCBs (ng/L)	24	1	1	50	LD	LD	-	1

LD - Less than detection limit

N - Number of Samples

PWQO - Provincial Water Quality Objective (MOE 1978)

(b) R.C. Harris Filtration Plant Raw Water Quality (March 8 - May 20, 1981)

Spring sampling of Lake Ontario nearshore using R.C. Harris raw water provided no indication that dredging (which commenced on April 13), dredged spoil disposal or lakefilling (which continued throughout the year) had any adverse effect on water quality at the R.C. Harris intake (Table 1). The average total phosphorus level of 16 ug/L was below the MOE guideline of 20 ug/L, average turbidity was below 1 FTU, and no parameters were detected at levels above the proposed revised Ontario Drinking Water Objectives.

Comparison of raw water with the PWQO in order to assess the potential effect on beneficial uses other than drinking water revealed three exceedances. PCBs, phenolics and Copper were each detected in 1 of 24 samples at a level of 50 ng/L, 2 ug/L and 6 ug/L respectively. The occasional occurrence of trace contaminants in the water recorded during this period was well within the background variations observed in Lake Ontario nearshore during other investigations (Great Lakes Water Quality Board 1977).

(c) In-lake Water Quality (May 20 - November 13, 1981)

(i) Water Clarity, Turbidity and Suspended Solids

Water clarity, turbidity and suspended solids measurements can be used to assess the movement of excavated materials or dredged sediments deposited into the aquatic environment. Impact assessment based on these parameters, however, is complicated by the inherent variability in such measurements caused by the resuspension of bottom sediments through wave action, erosion of the adjacent shoreline, and inputs from other sources such as rivers, sewage treatment plants and sewers.

Turbidity levels near the Headland are influenced not only by the lakefilling and dredged spoils disposal operations, but also by the Toronto Main STP effluent, erosion from the existing land forms and sediment load carried from the Scarborough Bluffs and the resulting variability can be seen in Tables 2 and 3 (i.e. the standard deviation at most stations exceeds the mean). The interpretation of turbidity plumes near the Headland is further complicated by the extreme proximity of the lakefilling site to the dredged spoils disposal site and the fact that much of the material in the 2nd embayment gap appears to be the result of erosion from the inner wall of the embayment arm.

Water clarity in the vicinity of dredging, dredged spoils disposal and lakefilling sites was determined along an intensive grid of stations using secchi depth measurements. In 1981, as in the previous (1980) study, extensive plumes were observed most frequently during strong winds (i.e. greater than 20 km/hr). One of the most extensive plumes observed (based on secchi depth measurements) is presented (Figure 4). Here, under moderate WSW winds (22 km/hr), a surface plume extended approximately 1.5 km to the northeast from the lakefilling site while the plume from the dredge spoils disposal site was largely confined to the first and second embayments. At the dredging site, decreases in water clarity appeared to be localized, although the areal extent directly attributable to the dredging activity was difficult to differentiate from the Don River plume.

The localized nature of turbidity plumes associated with dredging, and their low optical density in comparison to the Keating Channel is shown in Figure 5. Turbidity in wakes resulting from resuspension of bottom sediment by the passage of boats can also be seen in the Inner Harbour.

The localized plumes resulting from dredged spoil disposal and lakefilling at the Headland are illustrated in Figure 6.

PARAMETER: Turbidity (FTU) P.W.Q.O. Not Applicable DETECTION LIMIT: _____

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	15	19	21	NOT	NOT	NOT	23	22	23	22	22	22	22	NOT	22	22
N above detection	15	19	21				23	22	23	22	22	22	22		22	22
N above PWQO	-	-	-				-	-	-	-	-	-	-		-	-
Max.	78.00	40.00	28.00	SAMPLED	SAMPLED	SAMPLED	6.50	6.10	3.60	36.00	9.80	2.80	1.42	SAMPLED	7.80	10.10
Min.	0.49	0.42	0.49				0.42	0.40	0.26	0.25	0.73	0.35	0.26		0.41	0.53
Median	-	-	-				-	-	-	-	-	-	-		-	-
Mean	7.24	9.23	8.10				1.43	1.37	1.29	5.18	1.73	0.87	0.72		2.70	2.58
SD	19.66	11.6	8.69				1.36	1.19	0.84	9.17	1.88	0.51	0.32		2.06	2.66

N - Number of samples SD - Standard deviation

Table 2: Turbidity Summary May 20 - November 13, 1981

PARAMETER: Suspended Solids (mg/L) P.W.Q.O. Not Applicable DETECTION LIMIT: 1.0 mg/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	14	18	20	NOT	NOT	NOT	22	20	21	21	21	20	21	NOT	21	21
N above detection	14	18	20				19	20	19	19	19	15	15		21	21
N above PWQO	-	-	-				-	-	-	-	-	-	-		-	-
Max.	61.0	93.0	73.0	SAMPLED	SAMPLED	SAMPLED	7.0	10.0	8.9	88.0	23.0	4.5	4.1	SAMPLED	19.0	21.0
Min.	5.9	3	6.0				LD	1.0	LD	LD	LD	LD	LD		2.0	1.0
Median	16.7	21.0	28.1				3.0	3.0	2.0	9.0	4.0	1.0	1.0		6.6	5.0
Mean	23.2	29.3	29.7				-	3.5	-	-	-	-			7.2	5.2
SD	16.8	27.5	17.3				-	2.3	-	-	-	-			5.5	4.5

LD - Less than detection limit N - Number of Samples SD - Standard deviation

Table 3: Suspended Solids Summary May 20 - November 13, 1981

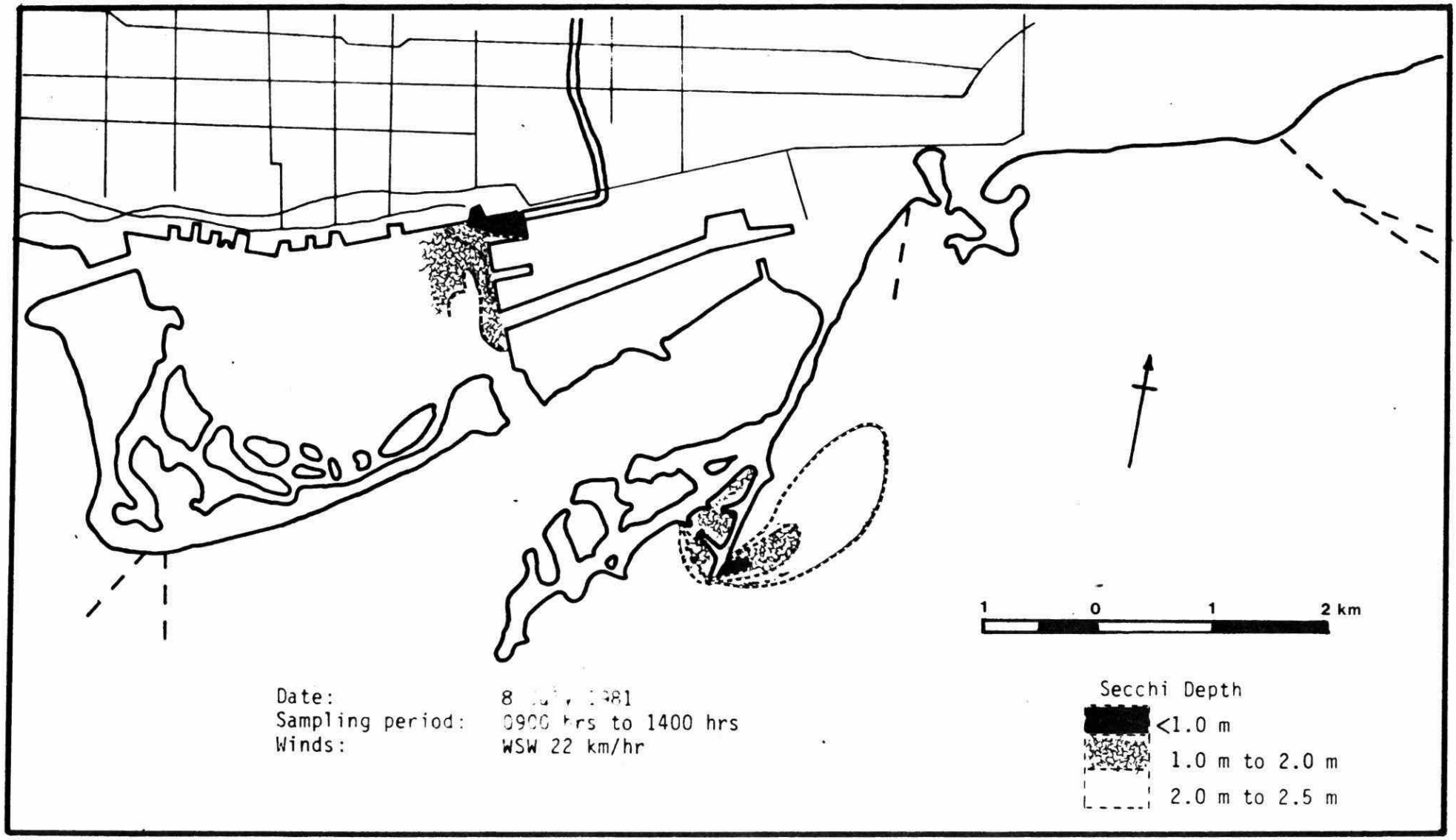

Figure 4 Turbidity Plumes at the Mouth of the Don River and at the Eastern Headland

Figure 5 Dredging Near Mouth of Don River 12 August 1981
Wind from SSW at 11 to 20 km/hr

Figure 6 Dredged Spoil Disposal and Lakefilling Operations at the Eastern Headland 6 August 1981
Wind from the SSW at 7 to 13 km/hr

Surface turbidity levels in the study area were generally highest at the dredging site where they averaged 9.2 FTU (Table 2). This value represents only a moderate increase over an average 7.2 FTU level indicative of Don River waters unaffected by the dredging activity which were measured approximately 500 m upstream from the river bend. The dredging activity appeared to have a negligible effect on the Inner Harbour turbidity where the average level was only 1.4 FTU. The effect of dredged spoils disposal on turbidity was confined to the two dredgeate embayments where recorded levels averaged just above 2.5 FTU. At the lakefilling site, turbidity averaged 5.2 FTU in contrast to levels near the Toronto Island and the R.C. Harris water intakes which were unaffected by ar, of the monitored activities and which averaged 0.9 FTU and 0.7 FTU, respectively. An average of 1.7 FTU was obtained near the Main STP outfall.

Suspended solid levels reflected the same patterns established through turbidity and water clarity measurements (Table 3). It has been reported (MOE 1979) that waters normally containing more than 80 mg/L suspended solids are unlikely to support good freshwater fisheries. Based on this guideline it is unlikely that any fish habitat in the study area was significantly altered as the result of elevated levels of suspended solids. Mean suspended solid concentration in the immediate vicinity of the dredging site was 29.3 mg/L (median 21.0) and thus only marginally higher than the average level of 23.2 mg/g (median 16.7) recorded upstream on the Don River. At the lakefilling site the median suspended solid level was 9.0 mg/L (mean unavailable) while the average level in waters at the second embayment gap was 5.2 mg/L (median 5.0). Elsewhere on the waterfront, suspended solid levels were low with median values of 4.0 mg/L at the Main STP outfall location, and 1.0 mg/L at both the Toronto Island and R.C. Harris water intake locations.

Generally, water clarity, turbidity and suspended solid levels in the study area were comparable to or lower than those reported in the 1980 survey, despite the increased dredging and lakefilling activities taking place in 1981.

(ii) Phosphorus

Two measures of phosphorus were investigated in this study (Tables 4 and 5): total phosphorus (TP), and filtered reactive phosphorus (FRP) which is generally considered to represent a phosphorus fraction available for algal growth . Ministry guidelines based on total phosphorus measurements suggest that excessive plant growth in rivers should be eliminated at a TP concentration below 30 ug/L and that in lakes nuisance concentrations of algae should be avoided at TP levels below 20 ug/L for the ice-free period.

The highest phosphorus levels in the study area were observed at the Don R. station, upstream from the dredging site, where mean values of 423 ug/L TP and 140 ug/L FRP were recorded. In contrast, average levels at the dredging site were 184 ug/L for TP and 21 ug/L for FRP, providing no evidence that dredging activities caused an elevation in phosphorus concentrations.

As expected, the highest phosphorus levels in the lake portion of the study area were recorded near the Toronto Main STP outfall (mean TP 159 ug/L, mean FRP 55 ug/L). Elsewhere in the study area phosphorus concentrations were generally low. The effects of dredged spoils disposal activities on phosphorus levels were confined to the embayments and did not extend beyond the second embayment gap where an average TP of 25 ug/L was recorded compared to average Lake Ontario TP levels of 22 ug/L (Island intake) and 17 ug/L (R.C. Harris intake) respectively.

PARAMETER: Total Phosphorus (ug/L) P.W.Q.O. 20 ug/L (guideline) DETECTION LIMIT: 9 ug

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	14	20	21	NOT	NOT	NOT	19	21	23	19	21	21	21	NOT	21	20
N above detection	14	20	21				19	21	23	19	21	21	21		21	20
N above PWQO	14	20	21				11	19	20	16	21	10	6		18	15
Max.	1250	505	960	SAMPLED	SAMPLED	SAMPLED	62	92	62	172	415	41	23	SAMPLED	52	40
Min.	90	30	100				20	20	12	20	53	14	11		14	13
Median	-	-	-				-	-	-	-	-	-	-			-
Mean	423	184	237				36	37	31	39	159	22	17		30	25
SD	283	139	175				12	17	12	36	101	7	4		11	7

N - Number of samples SD - Standard deviation

Table 4: Total Phosphorus Summary May 20 - November 13, 1981

PARAMETER: Filtered Reactive Phosphorus (ug/L) P.W.Q.O. - DETECTION LIMIT: 1.0 ug

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	13	20	18	NOT	NOT	NOT	18	19	23	18	19	21	21	NOT	21	20
N above detection	13	20	18				18	19	23	18	19	21	21		21	20
N above PWQO	-	-	-				-	-	-	-	-	-	-		-	-
Max.	485	55	190	SAMPLED	SAMPLED	SAMPLED	18	17	10	18	270	11	11	SAMPLED	7	6
Min.	25	5	1				1	1	1	1	1	1	1		1	1
Median	-	-	-				-	-	-	-	-	-	-		-	-
Mean	140	21	40				6	5	3	5	55	3	2		3	3
SD	134	15	43				5	4	2	4	63	3	2		2	2

N - Number of samples SD - Standard deviation

Table 5: Filtered Reactive Phosphorus Summary May 20 - November 13, 1981

Despite the fact that localized elevations of phosphorus were noted at the Don River and Main STP outfall, algal levels (inferred by chlorophyll a measurements, Table 6) did not reach nuisance proportions in the study area, where they remained below an average level of 10 ug/L.

(iii) Bacteria

Monitoring of fecal coliform and heterotrophic bacteria levels was carried out to assess possible bacterial contamination of the water resulting from construction activities.

As stated in the PWQO, water quality is considered impaired for swimming and bathing uses when the geometric mean (g.m.) of fecal coliform densities for a series of water samples exceed 100 organisms/100 mL. Bacterial counts were found to be highest in the Don River where the levels of fecal coliforms (FC) were consistently in excess of the PWQO for bathing and swimming throughout the study period (g.m. of over 1600 organisms/100 mL Table 7). The FC levels at the dredge site, although in excess of the PWQO, were less than half the upstream levels (g.m. 551 organisms/100 mL) providing no evidence for dredging related increases in FC levels.

Throughout the remainder of the study area, FC levels were well within the PWQO. At the lakefilling site a geometric mean FC level of 12 organisms/100 mL was recorded, while at the 1st and 2nd dredgeate embayment gaps geometric mean FC levels of 7 and 5 organisms/100 mL were observed. The Main STP station yielded a geometric mean of 15 organisms/100ml in comparison to the other Lake Ontario stations with geometric means of 4 and 3 organisms/100ml at the Island and R.C. Harris filtration plants respectively. Dredged spoil disposal and lakefilling activities could not, therefore, be labelled as significant sources of bacterial contamination.

PARAMETER: Total Chlorophyll a (ug/L) P.W.Q.O. Not Applicable DETECTION LIMIT: Not Applicable

Location	Don River	Dredge Site	Near Dredging Activities			Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	13	20	20	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	23	21	23	21	21	21	19	NOT SAMPLED	21	19
N above detection	-	-	-				-	-	-	-	-	-	-		-	-
N above PWQO	-	-	-				-	-	-	-	-	-	-		-	-
Max.	26.0	16.0	16.0				16.0	16.0	20.0	5.9	4.7	9.2	7.8		9.4	9.6
Min.	0.8	2.5	3.1				3.7	4.7	3.7	1.3	0.6	1.9	1.3		1.9	1.8
Median	-	-	-				-	-		-		-	-		-	
Mean	5.7	8.2	9.1				8.9	8.8	8.6	3.4	2.8	4.3	3.4		4.1	3.6
SD	6.5	3.6	3.5				3.7	3.4	4.7	1.3	1.2	2.0	1.9		1.9	1.8

N - Number of samples SD - Standard deviation

Table 6: Total Chlorophyll a Summary May 20 - November 13, 1981

PARAMETER: Fecal Coliform (organisms/100 ml) P.W.Q.O. 100 org/100 ml (geometric mean for a series of samples) DETECTION LIMIT: Not Applicable

Location	Don River	Dredge Site	Near Dredging Activities			Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	12	17	18	NOT	NOT	19	19	19	15	19	14	10	NOT	16	18
N above detection	-	-	-			-	-	-	-	-	-	-		-	-
N above PWQO	-	-	-			-	-	-	-	-	-	-		-	-
Max.	5000	3200	5100	SAMPLED	SAMPLED	680	600	212	150	300	138	10	SAMPLED	91	52
Min.	150	12	590			2	2	1	2	2	1	1		2	1
Median	-	-	-			-	-	-	-	-	-	-		-	-
Geometric Mean	1612	551	1732			21	15	7	12	15	4	3		7	5
SD	-	-	-			-	-	-	-	-	-	-		-	-

N - Number of samples SD - Standard deviation

Table 7: Fecal Coliform Summary May 20 - November 13, 1981

PARAMETER: Heterotrophic Bacteria ($\times 10^3$ organisms/ml) P.W.Q.O. Not Applicable DETECTION LIMIT: Not Applicable

Location	Don River	Dredge Site	Near Dredging Activities			Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	11	15	16	NOT	NOT	NOT	19	19	19	19	19	19	20	NOT	20	20
N above detection	-	-	-				-	-	-	-	-	-	-		-	-
N above PWQO	-	-	-				-	-	-	-	-	-	-		-	-
Max.	3150	3100	4350	SAMPLED	SAMPLED	SAMPLED	1700	750	580	750	1000	750	73	SAMPLED	405	700
Min.	205	130	245				70	45	15	5	2.5	5	0.9		10	175
Median	-	-	-				-	-	-	-	-	-	-		-	-
Geometric Mean	853	682	1780				296	188	99	73	79	63	12		68	110
SD	-	-	-				-	-	-	-	-	-	-		-	-

N - Number of samples SD - Standard deviation

Table 8: Heterotrophic Bacteria Summary May 20 - November 13, 1981

As with FC, heterotrophic bacteria (HB), which are one indicator of nutrient enrichment, exhibited highest densities in the Don River where a geometric mean of nearly 900,000 organisms/mL was observed (Table 8). The comparable level (g.m. of approximately 700,000 organisms/mL) recorded at the dredging site provided no indication that dredging contributed to even localized enrichment. Outside the Inner Harbour the geometric mean HB levels in the study area were generally below 100,000 organisms/mL , the sole exception being a level of 110,000 organisms/mL at the 2nd embayment gap.

(iv) PCBs, Mirex and Organochlorine Pesticides

PCBs and Mirex

The use and manufacture of PCBs in Canada is strictly controlled under specific regulation contained in the Environmental Contaminants Act. Their use is presently limited to closed system industrial applications.

Both the frequency of detection and concentrations of PCBs were highest at the dredging site and the Don River background station where they were present in approximately 30% of the samples with maximum values of 100 ng/L and 110 ng/L respectively. This similarity suggests that upstream inputs are a significant source of the PCBs detected at the mouth of the Don/Keating Channel. Resuspension of contaminated sediment resulting from dredging activity may, however, have helped maintain elevated levels immediately adjacent to the dredge site.

Elsewhere in the study area PCBs were detected occasionally (in less than 10% of the samples) at five locations (Table 9) with a range of observed concentrations (maximum concentration of 50 ng/L) consistent with those detected elsewhere in Lake Ontario (Great Lakes Water Quality Board 1977). The greatest frequency of detection (approximately 10%) was noted at the dredged spoils disposal site and the Main STP outfall: approximately twice that found at the Outer Harbour, lakefill, and 1st embayment gap stations.

PARAMETER: PCBs (ng/L) P.W.Q.O. 1.0 ng/L DETECTION LIMIT: 20 ng/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	23	30	27	3	3	3	34	22	21	35	22	21	35	10	33	32
N above detection	7	10	10	0	0	0	0	0	1	2	2	0	0	1	2	0
N above PWQO	7	10	10	0	0	0	0	0	1	2	2	0	0	1	2	0
Max.	110	100	185	LD	LD	LD	LD	LD	25	40	50	LD	LD	25	35	LD
Min.	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Median	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 9: PCBs Summary May 20 - November 13, 1981

The low frequency of detection, the absence of detectable levels at the 2nd embayment gap or near either of the filtration plant intakes, and the fact that the highest level detected in the vicinity of the Headland was over the Main STP outfall all indicate that the dredged spoil disposal and lakefilling activities had no widespread effect on PCB levels over the waterfront area.

Mirex, an industrial organic chemical used as a pesticide and as a fire retardant (dechlorane), was not detected in the study area (detection limit of 5 ng/L).

Organochlorine Pesticides and Insecticides

The most common organochlorine compounds observed in the study area in 1981 were α-BHC, γ-BHC (lindane) and β-BHC. Of these, only γ-BHC (lindane) presently has an established PWQO (0.01 ug/L).

Exceedances of the objective for lindane were observed in the Don River, at the dredge site and, less frequently, near the Main STP outfall. Lakefilling and dredged spoil disposal had, therefore, little effect on lindane levels near the Headland (Table 10). The frequency of objective exceedances at the control Don River location and at the dredging site were similar, 35% at the former and 30% at the latter, while the median concentration at the upstream site (7 ng/L) was nearly twice that at the dredging site (4 ng/L). As a result dredging activity could not be directly linked to an increase in lindane contamination.

PARAMETER: (γ-BHC) Lindane (ng/L) P.W.Q.O. 10 ng/L DETECTION LIMIT: 1 ng/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	23	30	27	3	3	3	34	21	21	35	22	21	35	10	33	33
N above detection	19	28	23	3	3	3	28	18	14	29	18	16	29	10	27	28
N above PWQO	8	9	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Max.	66	23	66	5	5	5	4	5	3	2	13	2	3	3	3	3
Min.	LD	LD	LD	3	1	1	LD	LD	LD	LD	LD	LD	LD	1	LD	LD
Median	7	4	4	3	2	1	1	1	1	1	4	1	1	1	1	1
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 10: Lindane Summary May 20 - November 13, 1981

Chlordane (α and γ) was present almost exclusively in the Don River and at the dredging site (the only exception being the fill site where it was detected in 1 of 35 samples). It was observed generally less than 20% of the time and in all cases at concentrations less than the PWQO of 0.06 ug/L (Table 11).

No forms of DDT (o,p DDT, p,p DDT) and the metabolite, p,p DDD were detected in the study area. The other metabolite, p,p DDE (a degradation product of DDT), was detected in less than 10% of the samples at six locations and exceeded the PWQO at two stations on one occasion: the 2nd embayment gap (1 of 34) and the dredge site (1 of 35) (Table 12). This low frequency of widespread detection does not provide a sufficient basis for establishing dredge related or lakefilling activity as sources.

Most other organochlorine compounds showed a similar distribution of occurrence. An occasional presence and/or objective exceedance was noted on one or two out of approximately thirty instances for endosulphan, aldrin/dieldrin, heptachlor/heptachlor epoxide and endrin. These occurrences were most commonly observed in the Don River and at the dredging, dredged spoils disposal and lakefilling sites, and near the Main Toronto STP. Due to the infrequent nature of these occurrences, however, the establishment of cause-effect relationships was not possible (see Appendix A for complete data listing).

Two organochlorine compounds investigated for the first time during 1981, oxychlordane and methoxychlor, were not detected.

Detectable levels of HCB (a popular organic primary manufacturing material) were found in 74% of the Don River samples, in 57% of the dredging site samples, and in 59% of the Toronto Main STP outfall samples. The highest concentration (0.5 ng/L) was measured at this latter station (Table 13). As was the case with other organochlorine compounds, no direct cause-effect relationship could be established between dredging, dredged spoil disposal, and lakefilling and levels or distribution of HCB. An objective for the protection of aquatic life has not been established for this compound.

PARAMETER: Chlordane α/γ (ng/L) P.W.Q.O. 60 ng/L ($\alpha+\gamma$) DETECTION LIMIT: 2 ng/L (for α and γ)

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	23	30	27	3	3	3	34	22	21	35	22	21	35	10	33	34
N above detection	3/5	4/5	4/4	0	0	0	0	0	0	0/1	0	0	0	0	0	0
N above PWQO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max.	3/5	5/7	6/11	LD	LD	LD	LD	LD	LD	3/LD	LD	LD	LD	LD	LD	LD
Min.	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Median	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 11: α Chlordane and γ Chlordane Summary May 20 - November 13, 1981

PARAMETER: p,p-DDE (ng/L) P.W.Q.O. 3 ng/L (Sum of DDT & metabolites) DETECTION LIMIT: 1 ng/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	23	30	27	3	3	3	34	22	21	35	22	21	35	10	33	34
N above detection	0	3	2	0	0	0	2	0	1	3	0	0	0	0	0	1
N above PWQO	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Max.	LD	4	3	LD	LD	LD	2	LD	1	3	LD	LD	LD	LD	LD	5
Min.	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Median	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Lessthan detection limit N - Number of samples SD - Standard deviation

Table 12: p,p-DDE Summary May 20 - November 13, 1981

PARAMETER: HCB (ng/L) P.W.Q.O. Not Applicable DETECTION LIMIT: 1 ng/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	23	30	27	3	3	3	34	21	21	35	22	20	35	10	33	33
N above detection	17	17	19	1	0	0	4	1	1	2	13	1	2	0	1	1
N above PWQO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Max.	11	14	9	1	LD	LD	1	2	1	1	29	1	4	LD	5	1
Min.	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Median	2	1	1	LD	LD	LD	LD	LD	LD	LD	5	LD	LD	LD	LD	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 13: HCB Summary May 20 - November 13, 1981

(v) Metals

All four metals investigated in this study (cadmium, lead, copper and zinc) were detected at all stations along the waterfront (Tables 14, 15, 16, 17). Of these, zinc and copper were the most frequently detected (in 80 to 100% of the samples) at all locations.

A comparison of the heavy metal data obtained at the dredging site with those recorded at the control location upstream in the Don River revealed no apparent elevation in metal concentrations as the result of dredging activities. Median levels and the frequency of PWQO exceedances for all metals at the dredging site were lower than or similar to those at the upstream Don River station.

Heavy metal levels at the dredged spoil disposal and lakefilling sites were generally similar to those at the Island and R.C. Harris filtration plants, and Main STP, providing no indication that disposal and filling activities resulted in elevated concentrations. Copper and cadmium accounted for virtually all of the PWQO exceedances, with the frequency of cadmium exceedances (30-40%) being fairly uniform over the entire study area and having median concentrations ranging from less than detection (0.2 ug/L) to 0.5 ug/L.

The widespread occurence and elevated levels of cadmium may be the result of the fact that it can be transported in solution as either hydrated cations, or as organic and inorganic complexes (United States Environmental Protection Agency 1979) and is, therefore, relatively mobile in the aquatic environment compared with other heavy metals. .

PARAMETER: Cadmium (ug/L) P.W.Q.O. 0.2 ug/L DETECTION LIMIT: Variable 0.1/0.2

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	22	30	29	3	3	3	33	21	20	35	21	19	34	10	35	32
N above detection	14	17	14	2	1	3	17	13	9	20	13	11	16	5	17	14
N above PWQO	10	13	10	2	0	0	10	7	7	13	9	7	11	4	13	11
Max.	1.3	2.1	1.8	0.4	0.2	0.2	0.9	1.1	0.9	1.0	1.2	1.2	1.1	0.9	1.2	8.0
Min.	LD	LD	LD	LD	LD	0.1	LD	0.1	LD	LD	LD	LD	LD	LD	LD	LD
Median	0.1	0.2	0.5	0.4	0.2	0.2	0.2	0.1	LD	0.2	0.2	0.2	LD	LD	0.1	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 14: Cadmium Summary May 20 - November 13, 1981

PARAMETER: Lead (ug/L) P.W.Q.O. 25 ug/L DETECTION LIMIT: 3 ug/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	22	30	29	3	3	3	33	21	20	35	21	19	34	10	35	32
N above detection	20	27	26	3	2	3	18	9	13	18	11	10	13	9	21	15
N above PWQO	5	3	4	0	0	0	1	0	0	0	0	0	0	0	0	0
Max.	200	170	250	16	11	13	42	20	12	15	11	11	9	13	16	13
Min.	LD	LD	LD	4	LD	3	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Median	12	10	12	10	6	7	3	LD	4	4	3	4	LD	8	5	LD
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 15: Lead Summary May 20 - November 13, 1981

PARAMETER: Copper ug/L P.W.Q.O. 5 ug/L DETECTION LIMIT: 1 ug/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour Background			Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	22	30	29	3	3	3	33	21	20	35	21	19	34	10	35	32
N above detection	22	30	29	3	3	3	32	21	20	32	21	19	33	10	35	29
N above PWQO	21	21	19	3	2	2	6	6	5	5	7	4	4	3	5	3
Max.	69	52	66	10	10	10	26	11	8	9	16	10	59	7	8	9
Min.	2	2	3	9	2	4	LD	1	2	LD	2	1	LD	2	1	LD
Median	11	7	7	10	6	6	3	3	4	3	5	3	3	4	3	3
Mean	15	10	11	10	6	7	-	4	4	-	6	4	-	4	4	-
SD	15	10	13	1	4	3	0	3	2	-	3	3	-	2	2	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 16: Copper Summary May 20 - November 13, 1981

PARAMETER: Zinc (ug/L) P.W.Q.O. 30 ug/L DETECTION LIMIT: 1 ug/L

Location	Don River	Dredge Site	Near Dredging Activities				Harbour	Background		Fill Site	STP	Lake Ontario		Dispos. Site	1st Gap	2nd Gap
Station #	2020	2017	1375	2026	2027	2028	1364	2019	202	1987	1419	1536	2029	1989	1984	2018
N	32	30	29	3	3	3	33	21	20	35	21	19	34	10	35	32
N above detection	32	30	29	3	3	3	33	19	18	33	21	18	32	10	30	28
N above PWQO	5	4	5	0	0	1	1	0	0	0	0	0	2	0	0	0
Max.	230	150	250	15	8	33	47	14	17	18	27	14	64	19	12	12
Min.	1	3	5	5	3	7	1	LD	LD	LD	3	LD	LD	3	LD	LD
Median	28	15	19	8	5	8	3	4	4	4	8	4	4	10	5	2
Mean	38	23	32	9	5	16	6	-	-	-	10	-	-	10	-	-
SD	52	29	48	5	3	15	9	-	-	-	6	-	-	5	-	-

LD - Less than detection limit N - Number of samples SD - Standard deviation

Table 17: Zinc Summary May 20 - November 13, 1981

APPENDIX A: Water Quality Data

The following water quality parameters are available for the 1981 study (Table A1).

TABLE A1 Water Quality Parameters

Parameter	Listed As	Detect. Limit	PWQO[1]	Units
Dissolved Oxygen	DISS. OXYGEN	----	Var.[2]	mg/L
Water Temperature	WATER TEMP.	----	----	°C
pH	pH	----	6.5-7.5	
Turbidity	TURBID	0.42	----	FTU
Total Suspended Solids	SUSP. SOLIDS	0.2	----	mg/L
Total Phosphorus	TOTAL PHOSP.	0.009	.02[3]	mg/L
Filtered Reactive Phosphorus	REACT. PHOSP.	0.001	----	mg/L
Total Chlorophyll a	CHLORO-A TOTAL	----	----	ug/L
Acidified Chlorophyll a	CHLORO-A CORRECT	----	----	ug/L
Total PCBs	PCB TOTAL	20	1	ng/L
Hexachlorobenzene	HCB	1	----	ng/L
α Hexachlorocyclohexane	BHC ALPHA	1	----	ng/L
β Hexachlorocyclohexane	BHC BETA	1	----	ng/L
γ Hexachlorocyclohexane (Lindane)	BHC GAMMA	1	10	ng/L
Heptachlor	HEPACHOR	1		ng/L
Heptachlor Epoxide	HEPE	1	1[4]	ng/L
Endrin	ENDRIN	4	20	ng/L
α Endosulphan	ENDOSULP I	2		ng/L
β Endosulphan	ENDOSULP II	4		ng/L
Endosulphan Sulphate	ENDOSULP SULPHATE	4	3[5]	ng/L
Aldrin	ALDRIN	1		ng/L
Dieldrin	DIELDRIN	2	1[6]	ng/L
pp'-DDE	PP-DDE	1		ng/L
op'-DDT	OP-DDT	5		ng/L
pp'-DDD	PP-DDD	5		ng/L
pp'-DDT	PP-DDT	5	3[7]	ng/L
α Chlordane	CHLRDANE ALPHA	2		ng/L
γ Chlordane	CHLRDANE GAMMA	2	60[8]	ng/L
Oxychlordane	OXCHLANE	2	----	ng/L
Mirex	MIREX	5	1	ng/L
Methoxychlor	DMDT	5	40	ng/L

TABLE A1 Continued

Fecal Coliforms	FECAL COLIFORM	----	100(9)	count per 100ml
Heterotrophic Bacteria	HETRO	----	----	count/ ml
Lead	LEAD	.003	Var.(2)	mg/L
Zinc	ZINC	.001	.030	mg/L
Copper	COPPER	.001	.005	mg/L
Cadmium	CADMIUM	.0002	.0002	mg/L

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(1) Provincial Water Quality Objective for Aquatic Life and Recreation (Ontario Ministry of the Environment 1978: Water Management Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment)

(2) Variable Objective

(3) Guideline

(4) Sum of Heptachlor and Heptachlor Epoxide

(5) Sum of α Endosulphan, β Endosulphan, and Endosulphan Sulphate

(6) Sum of Aldrin and Dieldrin

(7) Sum of DDT and metabolites

(8) Sum of α Chlordane and γ Chlordane

(9) Geometric mean of a series of samples

Results below the limit of detection have been presented in the following data listing as the detection limit followed by "LD".

STATION 202

DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100M)
15 5 81	1.5	NS	NS	NS	2.10	4.0	0.037	0.003	9.7	8.7	12.
19 5 81	1.5	NS	NS	NS	0.85	2.0	0.031	0.003	7.5	6.5	1.
25 5 81	1.5	9.70	12.0	7.33	1.10	3.0	0.022	0.004	6.3	5.9	12.
1 6 81	1.5	12.50	10.0	7.29	1.50	1.0 LD	0.020	.001 LD	5.7	5.6	2.
8 6 81	1.5	12.80	10.0	7.31	1.30	3.0	0.022	0.003	9.2	8.6	8.
15 6 81	1.5	12.60	10.5	8.02	0.90	2.0	0.014	0.003	4.2	NS	2.
22 6 81	1.5	12.00	12.5	7.60	0.80	1.0	0.022	.001 LD	6.0	5.4	19.
29 6 81	1.5	12.80	9.2	8.41	0.53	1.0	0.012	.001 LD	3.7	2.3	1.
6 7 81	1.5	12.80	17.2	8.46	1.00	1.0	0.032	.001 LD	7.1	6.6	0.
13 7 81	1.5	11.00	19.8	NS	1.30	1.0 LD	0.022	.001 LD	4.2	3.2	0.
22 7 81	1.5	11.20	14.0	8.49	0.65	NS	0.025	0.005	4.3	3.9	4.
23 7 81	1.5	10.50	15.2	8.61	2.20	1.0	0.029	.001 LD	5.0	4.6	10.
27 7 81	1.5	9.80	17.0	8.68	0.37	1.0	0.030	0.007	5.3	5.0	0.
10 8 81	1.5	11.00	21.8	8.79	0.83	2.5	0.046	0.010	15.0	13.0	4.
17 8 81	1.5	8.60	19.1	8.38	0.88	3.5	0.036	0.005	6.3	5.2	21.
24 8 81	1.5	8.40	13.0	8.60	1.04	2.9	0.028	0.002	8.2	0.9	13.
30 9 81	1.5	9.90	11.7	8.44	0.58	1.6	0.033	.001 LD	8.9	8.3	9.
6 10 81	1.5	10.80	9.7	8.25	0.26	2.6	0.032	.001 LD	5.2	4.9	86.
14 10 81	1.5	10.20	8.2	8.25	1.23	1.5	0.029	0.002	8.0	7.2	2.
21 10 81	1.5	8.70	8.0	8.32	3.00	8.9	0.041	0.005	17.0	14.0	212.
30 10 81	1.5	5.30	7.7	8.02	3.60	6.0	0.062	0.005	13.0	12.0	0.
4 11 81	1.5	11.30	9.0	8.19	2.30	4.8	0.058	0.004	17.0	15.0	2.
12 11 81	1.5	11.70	8.0	8.15	1.27	NS	0.039	0.006	20.0	18.0	9.

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	[illegible]
15 5 81	1.5	20.0 LD	1.0 LD	4.0	2.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
19 5 81	1.5	20.0 LD	1.0 LD	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
25 5 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
1 6 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
8 6 81	1.5	20.0 LD	1.0 LD	3.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
15 6 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
22 6 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
29 6 81	1.5	20.0 LD	1.0 LD	6.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
13 7 81	1.5	20.0 LD	1.0 LD	6.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
23 7 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
27 7 81	1.5	20.0 LD	1.0 LD	11.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
10 8 81	1.5	25.00	1.0 LD	7.0	2.0	3.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
17 8 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
24 8 81	1.5	20.0 LD	1.0 LD	1.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
30 9 81	1.5	20.0 LD	1.00	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
6 10 81	1.5	20.0 LD	1.0 LD	3.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
14 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
21 10 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
30 10 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
4 11 81	1.5	20.0 LD	1.0 LD	5.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]
12 11 81	1.5	20.0 LD	1.0 LD	7.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	[illegible]

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.005	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.009	0.004	NS	0.0002 LD
25 5 81	1.5	NS	NS	NS	NS	NS
1 6 81	1.5	0.010	0.003	0.003	0.08 LD	0.0002 LD
8 6 81	1.5	0.003 LD	0.002	0.004	0.08 LD	0.0002 LD
15 6 81	1.5	0.003 LD	0.001 LD	0.002	0.04 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.001 LD	0.002	0.04 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.017	0.003	0.08 LD	0.0002 LD
6 7 81	1.5	0.003	0.004	0.001	NS	0.0002 LD
13 7 81	1.5	0.004	0.002	0.003	0.10 LD	0.0002 LD
22 7 81	1.5	NS	NS	NS	NS	NS
23 7 81	1.5	0.004	0.004	0.003	0.050	0.0001
27 7 81	1.5	0.004	0.004	0.002	NS	0.0003
10 8 81	1.5	0.003 LD	0.004	0.007	0.07 LD	0.0001 LD
17 8 81	1.5	NS	NS	NS	0.060	NS
24 9 81	1.5	0.004	0.003	0.004	0.400	0.0003
30 9 81	1.5	0.004	0.003	0.004	NS	0.0001 LD
6 10 81	1.5	0.005	0.006	0.006	NS	0.0004
14 10 81	1.5	0.009	0.006	0.008	NS	0.0006
21 10 81	1.5	0.012	0.006	0.007	0.07 LD	0.0009 LD
30 10 81	1.5	0.007	0.009	0.003	0.08 LD	0.0006 LD
4 11 81	1.5	0.006	0.004	0.005	0.04 LD	0.0001 LD
12 11 81	1.5	0.007	0.008	0.008	0.060	0.0003 LD

STATION 1364

DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLOROPHYLL TOTAL (UG/L)	CHLOROPHYLL CORRECT (UG/L)	FECAL COLIFORM (ENT/100ML)
15 5 81	1.5	NS	NS	NS	6.00	7.0	0.041	0.007	7.8	7.4	220
19 5 81	1.5	NS	NS	7.22	1.50	8.0	0.037	0.006	7.6	7.0	2
29 5 81	1.5	13.00	12.6	7.35	1.20	3.0	0.033	0.007	10.0	15.0	2
1 6 81	1.5	11.90	11.2	7.29	1.20	1.0	0.026	.001 LD	7.7	4.4	4
5 6 81	1.5	12.70	12.0	7.25	NS	NS	NS	NS	NS	NS	0
8 6 81	1.5	11.70	12.5	7.31	1.00	2.0	0.028	0.004	11.0	10.0	10
10 6 81	1.5	11.40	12.0	7.25	NS	NS	NS	NS	NS	NS	0
15 6 81	1.5	13.70	12.9	8.38	6.50	6.0	0.030	0.001	5.6	NS	2
17 6 81	1.5	12.30	12.6	8.45	NS	NS	NS	NS	NS	NS	0
22 6 81	1.5	11.00	12.5	7.60	1.00	1.0 LD	0.036	0.002	9.3	8.2	150
29 6 81	1.5	13.50	12.1	8.60	0.55	3.0	0.028	0.016	5.5	4.3	5
3 7 81	1.5	11.80	14.9	NS	NS	NS	NS	NS	NS	NS	0
6 7 81	1.5	12.40	17.8	8.81	1.00	1.0 LD	0.025	.001 LD	9.2	8.1	12
8 7 81	1.5	10.90	18.2	8.66	NS	NS	NS	NS	NS	NS	0
13 7 81	1.5	11.90	17.2	8.35	0.60	1.0 LD	0.020	.001 LD	5.5	5.3	0
15 7 81	1.5	10.10	16.9	8.37	NS	NS	NS	NS	NS	NS	0
22 7 81	1.5	11.80	16.9	8.56	0.68	3.0	0.029	0.004	4.1	3.7	0
23 7 81	1.5	10.50	19.8	8.52	1.80	2.0	NS	NS	3.7	3.5	14
27 7 81	1.5	10.70	17.0	8.62	0.62	1.0	0.030	NS	8.2	8.0	0
31 7 81	1.5	9.80	19.0	8.67	NS	NS	NS	NS	NS	NS	0
6 8 81	1.5	9.90	21.1	8.58	NS	NS	NS	NS	NS	NS	0
10 8 81	1.5	10.10	22.0	8.60	0.80	3.2	0.057	0.012	16.0	15.0	150
17 8 81	1.5	8.10	19.3	8.22	1.22	6.3	0.062	0.011	8.9	7.9	150
24 8 81	1.5	8.40	13.5	8.53	1.03	1.7	0.027	0.007	9.5	8.3	40
30 8 81	1.5	9.50	12.0	8.45	0.68	1.6	0.036	0.002	9.2	8.2	7
6 10 81	1.5	NS	11.0	8.25	0.48	3.5	NS	NS	7.8	7.2	210
8 10 81	1.5	9.00	6.9	8.17	NS	NS	NS	NS	NS	NS	0
16 10 81	1.5	11.40	8.9	8.38	0.84	5.3	0.060	0.018	12.0	11.0	0
21 10 81	1.5	6.30	8.0	8.36	1.43	6.8	NS	NS	13.0	12.0	580
27 10 81	1.5	7.90	7.4	8.20	NS	NS	NS	NS	NS	NS	0
30 10 81	1.5	8.20	7.3	7.97	2.30	6.0	0.050	0.004	6.5	6.2	0
4 11 81	1.5	11.00	9.0	8.25	2.20	4.7	NS	NS	10.0	10.0	150
12 11 81	1.5	NS	NS	8.09	0.45	NS	0.034	0.008	8.4	7.7	18
13 11 81	1.5	NS	NS	8.05	NS	NS	NS	NS	NS	NS	1

DATE D M Y	DEPTH (M)	DDT NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDRIN T NG/L	NG/L
15 5 81	1.5	20.0 LD	1.0 LD	5.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 5 81	1.5	20.0 LD	1.0 LD	4.0	2.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	6.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	1.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	6.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	9.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	6.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.00	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	6.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	6.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	7.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	20.0 LD	1.0 LD	6.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	7.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.00	8.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.00	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.00	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.00	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	20.0 LD	1.0 LD	6.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
16 10 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	20.0 LD	1.0 LD	7.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	7.0	4.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	1.0 LD	9.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	8.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	9.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULPHAN II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	2.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	6.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
16 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	9.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.005	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.004	0.003	0.06 LD	0.0002
29 5 81	1.5	0.003	0.001	0.002	NS	0.0002 LD
1 6 81	1.5	0.010	0.001	0.002	0.06 LD	0.0002 LD
5 6 81	1.5	0.003 LD	0.003	0.003	0.06 LD	0.0002 LD
8 6 81	1.5	0.006	0.004	0.004	0.06 LD	0.0002 LD
10 6 81	1.5	0.003 LD	0.001	0.002	0.06 LD	0.0002 LD
15 6 81	1.5	0.003 LD	0.003	0.001 LD	0.05 LD	0.0002 LD
17 6 81	1.5	0.003 LD	0.003	0.002	0.06 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.003	0.002	0.06 LD	0.0002 LD
29 6 81	1.5	0.006	0.002	0.003	0.06 LD	0.0002 LD
3 7 81	1.5	0.003 LD	0.003	0.002	NS	0.0002 LD
6 7 81	1.5	0.003 LD	0.002	0.001	NS	0.0002 LD
8 7 81	1.5	0.003 LD	0.001	0.002	0.110	0.0002 LD
13 7 81	1.5	0.003 LD	0.003	0.004	0.07 LD	0.0002
15 7 81	1.5	0.003 LD	0.004	0.003	0.070	0.0004
22 7 81	1.5	0.004	0.004	0.002	0.04 LD	0.0001
23 7 81	1.5	0.007	0.003	0.003	NS	0.0004
27 7 81	1.5	0.008	0.003	0.002	0.07 LD	0.0005
31 7 81	1.5	0.010	0.012	0.009	0.090	0.0004
6 8 81	1.5	0.003 LD	0.003	0.002	0.07 LD	0.0002 LD
10 8 81	1.5	0.003 LD	0.008	0.004	0.06 LD	0.0002 LD
17 8 81	1.5	0.006	0.004	0.004	NS	0.0004
24 8 81	1.5	0.004	0.003	0.003	NS	0.0001
30 8 81	1.5	0.004	0.007	0.009	NS	0.0004
6 10 81	1.5	0.001 LD	0.021	0.004	NS	0.0002
8 10 81	1.5	0.003	0.001	0.003	0.240	0.0002
16 10 81	1.5	0.015	0.015	0.007	0.07 LD	0.0008
21 10 81	1.5	0.009	0.004	0.004	0.06 LD	0.0003
27 10 81	1.5	0.004	0.021	0.004	0.080	0.0001 LD
30 10 81	1.5	0.004	0.002	0.003	0.04 LD	0.0002
4 11 81	1.5	0.004	0.004	0.004	0.04 LD	0.0004
12 11 81	1.5	0.006	0.004	0.004	0.06 LD	0.0005
13 11 81	1.5	0.007	0.007	0.026	0.06 LD	0.0005

STATION 1375

DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLOROPHYLL-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
15 5 81	1.5	NS	NS	NS	12.00	17.0	0.144	0.016	4.6	3.3	600.
19 5 81	1.5	NS	NS	7.10	23.00	46.0	0.260	0.045	7.0	6.5	590.
25 5 81	1.5	9.10	13.0	7.16	13.00	20.0	0.165	0.010	15.0	14.0	5000.
27 5 81	1.5	11.90	12.0	7.31	NS	NS	NS	NS	NS	NS	0.
27 5 81	1.5	10.20	12.5	7.23	NS	NS	NS	NS	NS	NS	0.
1 6 81	1.5	8.80	16.9	7.16	6.00	18.0	0.262	.001 LD	7.3	5.8	700.
5 6 81	1.5	11.70	12.9	NS	NS	NS	NS	NS	NS	NS	0.
5 6 81	1.5	11.10	12.5	NS	NS	NS	NS	NS	NS	NS	0.
8 6 81	1.5	10.20	14.6	7.15	8.00	17.0	0.148	0.022	10.0	9.0	3000.
10 6 81	1.5	10.40	11.3	7.28	NS	NS	NS	NS	NS	NS	0.
10 6 81	1.5	10.00	12.5	7.19	NS	NS	NS	NS	NS	NS	0.
15 6 81	1.5	8.80	18.5	7.70	6.30	13.0	0.180	0.065	16.0	NS	870.
17 6 81	1.5	10.50	14.3	8.23	NS	NS	NS	NS	NS	NS	0.
22 6 81	1.5	8.00	14.8	6.94	8.70	6.0	0.278	0.062	9.4	7.5	3400.
29 6 81	1.5	8.30	19.1	8.00	1.50	29.0	0.231	NS	9.6	9.5	1700.
6 7 81	1.5	6.50	18.5	NS	7.70	32.0	0.215	0.065	7.3	6.0	3400.
13 7 81	1.5	8.00	21.9	7.83	0.60	30.0	0.168	0.040	8.4	6.7	0.
23 7 81	1.5	9.80	18.0	7.86	1.20	41.0	0.282	0.060	3.1	2.4	800.
27 7 81	1.5	9.40	17.0	7.96	0.49	34.0	0.100	NS	4.8	3.6	0.
10 8 81	1.5	8.00	23.0	7.88	0.53	13.1	0.245	NS	10.0	9.4	2500.
17 8 81	1.5	8.70	19.3	7.95	1.81	19.5	0.142	0.028	7.8	6.7	1700.
30 9 81	1.5	7.80	12.1	8.07	1.42	27.1	0.154	0.022	12.7	11.4	1490.
6 10 81	1.5	8.30	14.8	8.02	22.00	13.0	0.960	0.190	NS	NS	5000.
14 10 81	1.5	10.60	10.0	8.11	1.81	38.3	0.142	0.009	12.0	11.0	740.
21 10 81	1.5	9.00	10.8	7.99	2.70	45.0	0.255	0.032	10.7	9.8	5100.
27 10 81	1.5	8.80	10.5	7.91	NS	NS	NS	NS	NS	NS	0.
30 10 81	1.5	9.70	9.0	7.91	22.00	73.0	0.282	0.021	3.7	3.3	0.
4 11 81	1.5	9.50	9.3	7.93	28.00	61.9	0.190	0.009	11.7	10.4	4200.
12 11 81	1.5	10.20	7.7	7.97	1.43	NS	0.178	0.023	11.8	10.4	770.

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHLOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULF I NG/L	NG/L
15 5 81	1.5	20.0 LD	1.00	2.0	9.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.00	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	7.0	8.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	8.0	4.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	20.0 LD	1.0 LD	8.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.00	8.0	6.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	5.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	5.0	3.00	1.0 LD	1.0 LD	1.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	0.0	20.00	2.00	8.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.00	7.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	80.00	2.00	12.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	1.0 LD	66.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	75.00	1.00	3.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	25.00	2.00	7.0	9.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	2.00	12.0	6.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	9.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	5.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	3.00	14.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	20.0 LD	1.0 LD	4.0	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	185.00	5.00	9.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.0 LD	1.00	6.0	7.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	50.00	1.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	90.00	4.00	12.0	10.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.00	1.00	3.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	30.00	1.00	7.0	7.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.00	1.00	7.0	6.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULF II NG/L	ALDRIEN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	PIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	4.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	0.0	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	6.00	11.00	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	3.00	6.00	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	3.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	6.00	6.00	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.00	2.00	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	6.00	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.007	0.032	0.013	NS	0.0003
19 5 81	1.5	0.010	0.024	0.009	0.06 LD	0.0003
25 5 81	1.5	0.003 LD	0.017	0.005	NS	0.0002 LD
27 5 81	1.5	0.020	0.010	0.005	NS	0.0002 LD
27 5 81	1.5	0.020	0.014	0.008	NS	0.0002 LD
1 6 81	1.5	0.030	0.019	0.008	0.08 LD	0.0002 LD
5 6 81	1.5	0.003 LD	0.004	0.003	0.06 LD	0.0002 LD
8 6 81	1.5	0.004	0.005	0.003	0.06 LD	0.0002 LD
8 6 81	1.5	0.005	0.009	0.005	0.08 LD	0.0003
10 6 81	1.5	0.010	0.008	0.004	0.06 LD	0.0005
10 6 81	1.5	0.009	0.009	0.005	0.06 LD	0.0002
15 6 81	0.0	0.020	0.028	0.009	0.040	0.0002 LD
17 6 81	1.5	0.003 LD	0.009	0.003	0.060	0.0002 LD
22 6 81	1.5	0.020	0.037	0.009	0.060	0.0002 LD
29 6 81	1.5	0.006	0.017	0.005	NS	0.0002 LD
6 7 81	1.5	0.010	0.020	0.007	NS	0.0002 LD
13 7 81	1.5	0.013	0.019	0.007	0.10 LD	0.0002 LD
23 7 81	1.5	0.012	0.026	0.009	NS	0.0001
27 7 81	1.5	0.016	0.019	0.007	NS	0.0004
10 8 81	1.5	0.018	0.027	0.015	NS	0.0001
17 8 81	1.5	0.004	0.013	0.005	0.06 LD	0.0002 LD
30 9 81	1.5	0.013	0.014	0.006	NS	0.0001
6 10 81	1.5	0.250	0.250	0.066	NS	0.0018
14 10 81	1.5	0.006	0.070	0.028	NS	0.0001 LD
21 10 81	1.5	0.027	0.032	0.020	0.07 LD	0.0009
27 10 81	1.5	0.140	0.120	0.042	NS	0.0008
30 10 81	1.5	0.013	0.034	0.011	0.08 LD	0.0001 LD
4 11 81	1.5	0.023	0.025	0.008	0.080	0.0003
12 11 81	1.5	0.008	0.016	0.006	0.04 LD	0.0003

STATION 1419

DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
15 5 81	1.5	NS	NS	NS	2.20	2.0	0.102	0.027	NS	NS	4,
19 5 81	1.5	NS	NS	7.06	1.10	2.0	0.155	0.060	1.7	1.2	100,
25 5 81	1.5	11.00	12.3	7.14	1.30	4.0	0.142	0.071	2.1	2.1	2,
1 6 81	1.5	12.30	11.0	7.10	1.50	1.0	0.149	0.001	2.3	2.0	6,
8 6 81	1.5	12.40	7.0	7.10	1.00	5.0	0.053	0.015	2.1	2.1	8,
15 6 81	1.5	12.60	11.8	7.39	3.00	5.0	0.134	0.130	3.2	2.9	2,
22 6 81	1.5	11.00	13.4	7.01	1.20	2.0	0.100	0.059	2.4	2.3	22,
29 6 81	1.5	11.00	11.0	7.86	0.73	1.0	0.093	0.058	1.6	0.9	2,
6 7 81	1.5	10.50	17.0	7.77	1.00	2.0	0.415	0.270	4.3	4.0	150,
13 7 81	1.5	10.60	9.8	7.72	1.20	1.0	0.177	0.120	1.9	1.7	0,
23 7 81	1.5	9.10	16.2	7.74	1.60	2.0	0.144	0.018	3.3	2.9	18,
27 7 81	1.5	9.20	19.2	7.78	1.70	2.0	NS	NS	1.8	1.5	0,
10 8 81	1.5	8.80	20.1	7.73	0.90	5.6	0.159	NS	4.5	3.6	37,
17 8 81	1.5	7.80	20.5	7.44	1.46	8.5	0.310	NS	2.1	1.7	34,
24 8 81	1.5	9.00	14.5	7.91	2.10	4.9	0.068	0.020	4.5	0.5	28,
30 8 81	1.5	9.90	9.3	7.72	0.93	1.1	0.067	0.018	0.6	0.4	3,
6 10 81	1.5	9.30	11.5	7.70	0.99	6.6	0.410	0.001	1.9	1.9	9,
14 10 81	1.5	10.20	10.0	NS	0.90	4.7	0.101	0.038	4.3	4.0	5,
21 10 81	1.5	9.80	10.1	7.63	0.74	5.4	0.215	0.049	2.0	1.8	150,
30 10 81	1.5	5.80	10.0	7.72	9.80	23.0	0.110	0.022	3.5	3.2	0,
4 11 81	1.5	7.50	11.7	7.57	1.09	5.8	0.091	0.020	4.7	4.6	14,
12 11 81	1.5	10.20	11.0	7.49	1.54	NS	0.143	0.056	4.1	3.6	300.

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	DDDT NG/L
15 5 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.00	1.0 LD	1.00	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.0 LD	10.0	7.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	3.0	1.0 LD	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	5.00	1.0 LD	6.00	1.0 LD	1.0 LD	1.0 LD	4.00	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	4.00	1.0 LD	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	10.00	1.0 LD	5.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.00	4.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	9.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.00	1.0 LD	1.0 LD	1.00	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	10.00	1.0 LD	5.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	29.00	1.0 LD	6.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	1.0 LD	4.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.0 LD	1.0 LD	13.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	8.00	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	5.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	9.00	4.0	5.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	50.00	22.00	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.0 LD	10.00	5.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	25.00	20.00	3.0	10.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.0 LD	15.05	6.0	6.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	11.00	3.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	12.00	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	5.0 LD	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.011	0.004	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.003	0.003	0.08 LD	0.0002
25 5 81	1.5	0.008	0.007	0.002	NS	0.0002 LD
1 6 81	1.5	0.010	0.003	0.002	0.08 LD	0.0002 LD
8 6 81	1.5	0.003 LD	0.003	0.003	0.08 LD	0.0002 LD
15 6 81	1.5	0.003 LD	0.006	0.003	0.050	0.0002 LD
22 6 81	1.5	0.003 LD	0.004	0.003	0.04 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.004	0.004	0.08 LD	0.0007
6 7 81	1.5	0.003 LD	0.008	0.007	NS	0.0002
13 7 81	1.5	0.003 LD	0.005	0.004	0.10 LD	0.0002 LD
23 7 81	1.5	0.009	0.014	0.005	0.080	0.0004
27 7 81	1.5	0.004	0.012	0.004	NS	0.0005
10 8 81	1.5	0.003 LD	0.014	0.006	NS	0.0002 LD
17 8 81	1.5	NS	NS	NS	0.06 LD	NS
24 8 81	1.5	0.005	0.012	0.007	NS	0.0003
30 8 81	1.5	0.003 LD	0.007	0.005	NS	0.0002
6 10 81	1.5	0.006	0.017	0.010	NS	0.0006
14 10 81	1.5	0.007	0.013	0.011	NS	0.0006
21 10 81	1.5	0.011	0.020	0.018	0.07 LD	0.0012
30 10 81	1.5	0.003	0.027	0.008	0.06 LD	0.0006
4 11 81	1.5	0.005	0.006	0.005	0.04 LD	0.0002
12 11 81	1.5	0.005	0.010	0.007	0.04 LD	0.0005

STATION 1536

DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
15 5 81	1.5	NS	NS	NS	2.80	2.0	0.034	0.006	5.9	3.1	28.
19 5 81	1.5	NS	NS	7.14	1.00	1.0	0.019	0.002	2.6	2.5	0.
25 5 81	1.5	12.70	10.7	7.30	0.47	1.0	0.018	0.008	3.5	3.5	4.
1 6 81	1.5	12.50	7.0	7.26	0.90	1.0 LD	0.017	0.001	2.7	2.1	4.
8 6 81	1.5	12.60	11.8	7.32	1.00	1.0	0.026	0.004	8.9	8.4	2.
15 6 81	1.5	13.30	9.0	7.33	0.80	2.0	0.017	0.001	3.4	3.3	2.
22 6 81	1.5	12.50	12.8	7.65	0.57	1.0 LD	0.015	0.001	4.4	4.1	2.
29 6 81	1.5	12.90	10.9	7.99	0.55	1.0 LD	0.017	0.006	3.6	3.5	0.
13 7 81	1.5	11.60	17.0	8.39	0.52	1.0 LD	0.014	0.001	1.9	1.8	0.
22 7 81	1.5	11.60	16.0	8.76	0.70	NS	0.020	0.003	2.9	2.8	2.
23 7 81	1.5	11.00	15.0	8.67	1.20	1.0 LD	0.023	0.001	3.0	2.6	0.
27 7 81	1.5	10.70	17.5	8.65	0.45	1.0	0.017	0.003	2.3	2.1	0.
10 8 81	1.5	11.10	20.4	8.65	0.82	1.6	0.020	0.003	3.2	2.6	0.
17 8 81	1.5	9.40	19.9	8.59	0.75	1.6	0.023	0.003	4.4	3.7	1.
24 9 81	1.5	9.70	13.5	8.47	1.17	1.8	0.018	0.001	NS	NS	8.
30 9 81	1.5	9.90	11.1	8.44	0.80	1.7	0.031	0.001	9.2	8.3	8.
6 10 81	1.5	10.00	8.0	8.22	0.35	0.8	0.025	0.001	4.5	4.4	4.
14 10 81	1.5	11.70	6.8	7.64	0.48	0.9	0.027	0.004	3.4	3.3	0.
21 10 81	1.5	8.00	7.0	8.05	0.94	4.3	0.041	0.011	7.8	7.3	138.
30 10 81	1.5	10.60	8.7	7.72	1.46	1.0	0.019	0.001	3.7	3.5	0.
4 11 81	1.5	11.30	8.9	7.95	0.61	4.5	NS	NS	4.6	4.2	1.
12 11 81	1.5	11.30	8.0	7.62	0.77	NS	0.020	0.004	3.7	3.3	4.

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	[illegible] NG/L
15 5 81	1.5	20.0 LD	1.0 LD	3.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.0 LD	3.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	4.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	6.0	2.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.00	6.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 9 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.0 LD	1.0 LD	6.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.004	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.002	0.003	0.08 LD	0.0002 LD
25 5 81	1.5	0.005	0.004	0.001	NS	0.0002 LD
1 6 81	1.5	0.010	0.001 LD	0.002	0.08 LD	0.0002 LD
8 6 81	1.5	NS	NS	NS	0.08 LD	NS
15 6 81	1.5	0.003 LD	0.006	0.002	0.070	0.0002
22 6 81	1.5	0.003 LD	0.004	0.001	0.080	0.0002 LD
29 6 81	1.5	0.003 LD	0.005	0.002	0.08 LD	0.0008
13 7 81	1.5	0.003 LD	0.001 LD	0.010	0.10 LD	0.0002 LD
22 7 81	1.5	NS	NS	NS	NS	NS
23 7 81	1.5	0.005	0.003	0.002	0.04 LD	0.0003
27 7 81	1.5	0.004	0.007	0.002	NS	0.0001
10 8 81	1.5	0.003 LD	0.011	0.004	0.070	0.0002 LD
17 8 81	1.5	NS	NS	NS	0.06 LD	NS
24 9 81	1.5	0.006	0.004	0.005	NS	0.0004
30 9 81	1.5	0.003 LD	0.002	0.003	NS	0.0001 LD
6 10 81	1.5	0.004	0.013	0.006	NS	0.0004
14 10 81	1.5	0.007	0.014	0.008	NS	0.0006
21 10 81	1.5	0.011	0.013	0.007	0.07 LD	0.0012
30 10 81	1.5	0.006	0.006	0.001	0.08 LD	0.0004
4 11 81	1.5	0.004	0.008	0.004	NS	0.0002
12 11 81	1.5	0.003 LD	0.010	0.004	0.04 LD	0.0002

STATION 1984

DATE	DEPTH	DISS. OXYGEN	WATER TEMP.	PH	TURBID.	SUSP. SOLIDS.	TOTAL PHOSP.	REACT. PHOSP.	CHLOROPH TOTAL	CHLOROPH CORRECT	FECAL COLIFORM
D M Y	(M)	(MG/L)	(C)		(FTU)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(CNT/100ML)
15 5 81	1.5	NS	NS	NS	0.90	8.0	0.028	0.003	4.8	3.8	14.
19 5 81	1.5	NS	NS	7.28	4.00	14.0	0.038	0.001	3.2	2.1	4.
26 5 81	1.5	11.80	9.0	7.25	2.10	2.0	0.022	0.005	3.4	3.1	4.
27 5 81	1.5	10.80	9.8	7.11	NS	NS	NS	NS	NS	NS	0.
27 5 81	1.5	11.80	10.0	7.22	NS	NS	NS	NS	NS	NS	0.
1 6 81	1.5	12.30	8.5	7.25	3.20	2.0	0.016	0.001	2.0	1.4	2.
8 6 81	1.5	12.80	9.2	NS	1.10	2.0	0.014	0.002	2.7	2.2	2.
10 6 81	1.5	11.90	7.0	7.25	NS	NS	NS	NS	NS	NS	0.
15 6 81	1.5	12.80	7.5	7.07	2.80	4.0	0.023	0.001	2.2	NS	0.
17 6 81	1.5	11.40	12.2	8.16	NS	NS	NS	NS	NS	NS	0.
22 6 81	1.5	11.80	11.4	7.51	1.50	2.0	0.028	0.001	3.9	3.7	0.
29 6 81	1.5	12.40	8.4	8.30	0.75	2.0	0.020	0.002	1.8	1.4	0.
3 7 81	1.5	11.80	13.1	NS	NS	NS	NS	NS	NS	NS	0.
6 7 81	1.5	11.40	14.4	8.29	1.50	2.0	0.088	0.001	7.0	6.7	3.
8 7 81	1.5	10.50	12.0	8.38	NS	NS	NS	NS	NS	NS	0.
13 7 81	1.5	11.00	12.1	8.14	2.10	2.0	0.021	0.001	2.9	2.8	0.
15 7 81	1.5	10.90	9.5	7.99	NS	NS	NS	NS	NS	NS	0.
22 7 81	1.5	11.10	15.0	8.59	NS	NS	NS	NS	NS	NS	0.
27 7 81	1.5	10.00	13.8	8.52	8.40	7.0	0.029	0.001	3.4	3.1	0.
27 7 81	1.5	9.20	17.5	8.68	0.41	2.0	0.021	0.003	2.3	1.7	0.
31 7 81	1.5	7.30	19.2	8.37	NS	NS	NS	NS	NS	NS	0.
5 8 81	1.5	8.50	19.0	8.42	NS	NS	NS	NS	NS	NS	0.
10 8 81	1.5	10.30	22.0	8.76	0.95	4.5	0.043	0.007	5.7	5.7	0.
17 8 81	1.5	8.80	18.9	8.38	1.40	11.4	0.035	0.005	4.6	3.8	91.
24 8 81	1.5	9.10	19.4	8.43	2.20	6.6	0.029	0.004	NS	NS	0.
30 8 81	1.5	10.40	7.0	8.12	2.10	7.9	0.032	0.002	3.7	3.5	14.
4 10 81	1.5	9.50	8.0	8.15	2.40	10.7	NS	NS	2.3	2.2	0.
7 10 81	1.5	9.50	7.2	8.19	NS	NS	NS	NS	NS	NS	0.
14 10 81	1.5	8.80	7.1	8.11	1.44	14.8	0.047	0.004	3.2	2.7	0.
21 10 81	1.5	10.70	7.3	8.17	4.20	19.0	0.058	0.004	6.3	5.7	36.
27 10 81	1.5	8.20	6.5	8.11	NS	NS	NS	NS	NS	NS	0.
30 10 81	1.5	2.90	7.0	7.98	7.00	12.0	0.080	0.003	5.7	5.6	0.
4 11 81	1.5	5.70	8.2	7.97	3.80	15.2	0.036	0.003	5.3	4.8	10.
12 11 81	1.5	11.60	7.0	8.00	2.30	NS	0.036	0.003	9.4	9.0	4.
13 11 81	1.5	NS	NS	7.98	NS	NS	NS	NS	NS	NS	0.

DATE	DEPTH	PCB	HCB	BHC ALPHA	BHC GAMMA	BHC BETA	HEPTACHLOR	HEPE	ENDRIN	ENDOSULP I	D
D M Y	(M)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
26 5 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	3.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	20.0 LD	5.00	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.0 LD	7.0	1.0 LD	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
7 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.0 LD	1.0 LD	6.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	35.00	1.0 LD	5.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	7.0	3.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	1.0 LD	4.0	3.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	8.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	ENDOSULP II	ALDRIN	DIELDRIN	PP-DDE	PP-DDT	PP-DDD	CHLORDANE ALPHA	CHLORDANE GAMMA	OXYCHLOR	MIREX
D M Y	(M)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
26 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
7 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	LEAD	ZINC	COPPER	MERCURY	CADMIUM
D M Y	(M)	(MG/L)	(MG/L)	(MG/L)	(NG/L)	(MG/L)
15 5 81	1.5	0.003 LD	0.007	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.004	0.003	0.08 LD	0.0002
26 5 81	1.5	0.005	0.001 LD	0.001	NS	0.0002 LD
27 5 81	1.5	0.010	0.001 LD	0.003	NS	0.0002 LD
27 5 81	1.5	0.010	0.001 LD	0.004	NS	0.0002 LD
1 6 81	1.5	0.010	0.002	0.002	0.06 LD	0.0002 LD
8 6 81	1.5	0.003 LD	0.001	0.002	0.06 LD	0.0003
10 6 81	1.5	0.003 LD	0.004	0.001	0.06 LD	0.0002 LD
15 6 81	1.5	0.003 LD	0.001 LD	0.002	0.06 LD	0.0003
17 6 81	1.5	0.003 LD	0.005	0.006	0.06 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.001 LD	0.002	0.060	0.0002 LD
29 6 81	1.5	0.003 LD	0.002	0.002	0.06 LD	0.0002 LD
3 7 81	1.5	0.006	0.003	0.003	0.06 LD	0.0002 LD
6 7 81	1.5	0.003 LD	0.002	0.002	NS	0.0002 LD
8 7 81	1.5	0.003 LD	0.003	0.003	NS	0.0002 LD
13 7 81	1.5	0.003	0.003	0.003	0.10 LD	0.0002 LD
15 7 81	1.5	0.008	0.004	0.004	0.07 LD	0.0004
22 7 81	1.5	0.004	0.004	0.003	0.04 LD	0.0004
29 7 81	1.5	0.006	0.007	0.003	0.040	0.0001
27 7 81	1.5	0.008	0.004	0.002	NS	0.0003
31 7 81	1.5	0.003 LD	0.004	0.002	0.07 LD	0.0005
5 8 81	1.5	0.004	0.006	0.004	0.06 LD	0.0003
10 8 81	1.5	0.003 LD	0.005	0.005	0.07 LD	0.0002 LD
17 8 81	1.5	0.003 LD	0.012	0.006	0.06 LD	0.0002 LD
24 8 81	1.5	0.008	0.005	0.005	NS	0.0005
30 8 81	1.5	0.003 LD	0.006	0.004	NS	0.0001 LD
4 10 81	1.5	0.005	0.012	0.006	0.300	0.0004
7 10 81	1.5	0.005	0.005	0.003	NS	0.0002 LD
14 10 81	1.5	0.007	0.005	0.008	NS	0.0006
21 10 81	1.5	0.016	0.016	0.007	0.07 LD	0.0007
27 10 81	1.5	0.007	0.009	0.003	0.06 LD	0.0002 LD
30 10 81	1.5	0.009	0.010	0.003	0.06 LD	0.0004
4 11 81	1.5	0.009	0.009	0.005	0.04 LD	0.0001
12 11 81	1.5	0.006	0.008	0.005	0.04 LD	0.0004
13 11 81	1.5	0.004	0.007	0.006	0.03 LD	0.0012

STATION 1987

DATE	DEPTH	DISS. OXYGEN	WATER TEMP.	PH	TURBTY.	SUSP. SOLIDS	TOTAL PHOSP.	REACT. PHOSP.	CHLORO-A TOTAL	CHLORO-A CORRECT	FECAL COLIFORM
D M Y	(FT)	(MG/L)	(C)		(FTU)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(CNT/100ML)
15 5 81	1.5	NS	NS	NS	1.50	2.0	0.010	0.001	NS	NS	4.
16 5 81	1.5	NS	NS	7.21	1.00	5.0	0.031	0.003	4.8	1.9	U.
25 5 81	1.5	11.80	10.0	7.24	21.00	42.0	0.092	0.013	23.0	8.6	92.
27 5 81	1.5	11.10	8.8	7.30	NS	NS	NS	NS	NS	NS	U.
1 6 81	1.5	12.40	8.5	7.23	0.88	1.0 LD	0.020	0.003	1.8	1.4	4.
8 6 81	1.5	12.90	9.7	7.23	1.10	2.0	0.020	0.002	4.1	3.9	9.
10 6 81	1.5	11.90	9.8	7.23	NS	NS	NS	NS	NS	NS	U.
15 6 81	1.5	11.30	7.9	7.87	5.00	13.0	0.031	NS	3.4	NS	18.
17 6 81	1.5	12.50	9.4	8.33	NS	NS	NS	NS	NS	NS	U.
22 6 81	1.5	12.00	12.0	7.52	4.30	15.0	0.031	0.001	2.7	2.4	19.
24 6 81	1.5	12.40	8.0	8.49	NS	NS	NS	NS	NS	NS	U.
29 6 81	1.5	12.20	11.2	8.15	0.80	1.0 LD	0.037	0.018	1.3	0.8	U.
1 7 81	1.5	11.30	12.9	8.65	NS	NS	NS	NS	NS	NS	U.
6 7 81	1.5	12.00	10.9	8.37	1.00	3.0	0.027	0.005	3.9	3.7	46.
8 7 81	1.5	10.30	12.7	8.65	NS	NS	NS	NS	NS	NS	U.
13 7 81	1.5	NS	NS	NS	2.50	9.0	0.024	0.001	3.0	2.4	U.
15 7 81	1.5	11.30	7.2	8.06	NS	NS	NS	NS	NS	NS	U.
22 7 81	1.5	11.40	14.9	8.63	NS	NS	NS	NS	NS	NS	U.
23 7 81	1.5	10.80	14.0	8.87	1.30	11.0	0.032	0.001	3.7	3.4	3.
27 7 81	1.5	9.20	18.0	8.81	1.70	25.0	NS	NS	1.7	1.4	U.
31 7 81	1.5	8.60	20.2	8.51	NS	NS	NS	NS	NS	NS	U.
31 7 81	1.5	8.70	19.5	8.50	NS	NS	NS	NS	NS	NS	U.
5 8 81	1.5	20.80	20.2	8.64	NS	NS	NS	NS	NS	NS	U.
10 8 81	1.5	10.20	20.9	8.69	1.51	12.6	0.032	0.008	4.7	4.0	U.
17 8 81	1.5	9.80	19.4	8.53	3.10	24.3	0.043	0.005	4.6	3.9	150.
24 8 81	1.5	9.20	13.9	8.65	1.81	4.3	0.025	0.007	4.6	2.3	4.
30 8 81	1.5	10.20	8.0	8.08	2.50	6.1	0.024	0.002	1.5	1.4	4.
6 10 81	1.5	10.80	8.2	8.25	0.25	U.4	NS	NS	3.7	NS	4.
8 10 81	1.5	12.00	5.0	8.13	NS	NS	NS	NS	NS	NS	U.
16 10 81	1.5	11.70	7.1	8.13	1.25	5.0	0.029	0.005	2.9	2.4	U.
21 10 81	1.5	11.00	6.3	8.12	2.40	3.5	0.022	0.003	3.9	3.6	44.
27 10 81	1.5	10.30	6.0	8.22	NS	NS	NS	NS	NS	NS	U.
30 10 81	1.5	9.10	8.0	8.08	38.00	88.0	0.172	0.004	5.9	5.9	U.
4 11 81	1.5	9.40	9.0	8.15	23.00	72.1	NS	NS	5.4	5.2	150.
12 11 81	1.5	11.40	8.0	8.05	0.48	NS	0.024	0.003	4.5	4.5	4.
13 11 81	1.5	NS	NS	7.96	NS	NS	NS	NS	NS	NS	U.

DATE	DEPTH	PCB	HCB	BHC ALPHA	BHC GAMMA	BHC BETA	HEPACHLOR	HEPOX	ENDRIN	ENDOSULFAN I	DIELDRIN
D M Y	(FT)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
16 5 81	1.5	20.0 LD	1.0 LD	3.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	8.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 5 81	1.5	20.0 LD	1.0 LD	5.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.00	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 8 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.00	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
16 10 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	7.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	40.00	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	40.00	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	ENDOSULFAN II	ALDRIN	DIELDRIN	PP-DDE	PP-DDT	PP-DDD	CHLORDANE ALPHA	CHLORDANE GAMMA	OXYCHLOR	MIREX
D M Y	(FT)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
16 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	8.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
16 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	8.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	LEAD	ZINC	COPPER	MERCURY	CADMIUM
D M Y	(FT)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
15 5 81	1.5	0.003 LD	0.002	0.003	NS	0.0002 LD
16 5 81	1.5	0.003 LD	0.003	0.003	0.08 LD	0.0002
25 5 81	1.5	0.009	0.001	0.001 LD	NS	0.0002 LD
27 5 81	1.5	0.010	0.001 LD	0.003	NS	0.0002 LD
1 6 81	1.5	0.010	0.001 LD	0.001 LD	0.08 LD	0.0002 LD
8 6 81	1.5	NS	NS	NS	NS	NS
10 6 81	1.5	0.003 LD	0.002	0.001 LD	0.08 LD	0.0005
15 6 81	1.5	0.003 LD	0.002	0.002	0.08 LD	0.0002 LD
17 6 81	1.5	0.003 LD	0.002	0.001	0.08 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.001	0.002	0.080	0.0002 LD
24 6 81	1.5	0.003 LD	0.004	0.002	0.08 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.001	0.003	0.08 LD	0.0007
1 7 81	1.5	0.003 LD	0.008	0.002	0.08 LD	0.0002 LD
6 7 81	1.5	0.003 LD	0.004	0.004	NS	0.0002 LD
8 7 81	1.5	0.003 LD	0.005	0.003	NS	0.0002 LD
13 7 81	1.5	0.003 LD	0.003	0.003	0.10 LD	0.0002 LD
15 7 81	1.5	0.003 LD	0.004	0.004	0.078	0.0003
22 7 81	1.5	0.004	0.007	0.004	0.080	0.0004
23 7 81	1.5	0.008	0.009	0.004	0.080	0.0002
27 7 81	1.5	0.008	0.007	0.003	NS	0.0002
31 7 81	1.5	0.004	0.004	0.003	NS	0.0003
31 7 81	1.5	0.005	0.015	0.003	NS	0.0008
5 8 81	1.5	0.011	0.018	0.009	0.09 LD	0.0002
10 8 81	1.5	0.004	0.005	0.004	0.07 LD	0.0002 LD
17 8 81	1.5	0.004	0.009	0.004	0.08 LD	0.0002 LD
24 8 81	1.5	0.003 LD	0.004	0.004	NS	0.0004
30 8 81	1.5	0.007	0.003	0.003	NS	0.0002
6 10 81	1.5	0.003 LD	0.004	0.004	NS	0.0004
8 10 81	1.5	0.003 LD	0.001	0.004	NS	0.0002
16 10 81	1.5	0.004	0.007	0.008	NS	0.0005
21 10 81	1.5	0.014	0.008	0.007	0.07 LD	0.0010
27 10 81	1.5	0.003 LD	0.002	0.002	0.08 LD	0.0002 LD
30 10 81	1.5	0.007	0.004	0.003	0.08 LD	0.0004
4 11 81	1.5	0.015	0.012	0.009	0.06 LD	0.0002
12 11 81	1.5	0.005	0.002	0.004	0.06 LD	0.0005
13 11 81	1.5	0.007	0.004	0.004	0.03 LD	0.0004

STATION 1989

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHLOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	DMDT NG/L
17 6 81	1.5	20.0 LD	1.0 LD	6.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	6.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	7.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	8.0	5.0 LD
15 7 81	1.5	20.0 LD	1.0 LD	5.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	25.00	1.0 LD	6.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	20.0 LD	1.0 LD	7.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	6.0	2.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	8.0	2.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
17 6 81	1.5	0.009	0.010	0.005	0.05 LD	0.0002 LD
3 7 81	1.5	0.007	0.005	0.002	0.06 LD	0.0002 LD
8 7 81	1.5	0.003 LD	0.003	0.003	NS	0.0002 LD
15 7 81	1.5	0.006	0.006	0.005	0.07 LD	0.0003
22 7 81	1.5	0.007	0.009	0.004	0.04 LD	0.0004
31 7 81	1.5	0.012	0.017	0.007	NS	0.0004
6 8 81	1.5	0.010	0.012	0.006	0.09 LD	0.0002
8 10 81	1.5	0.009	0.010	0.004	NS	0.0002 LD
27 10 81	1.5	0.009	0.010	0.005	0.08 LD	0.0002 LD
13 11 81	1.5	0.013	0.009	0.006	0.03 LD	0.0009
31 7 81	1.5	0.008	0.003	0.002	0.070	0.0001
31 7 81	1.5	0.004	0.008	0.003	0.070	0.0003

STATION 2017

DATE	DEPTH	DISS. OXYGEN	WATER TEMP.	PH	TURBID.	SUSP. SOLIDS.	TOTAL PHOSP.	REACT. PHOSP.	CHLORO-A TOTAL	CHLORO-A CORRECT	FECAL COLIFORM
D M Y	(M)	(MG/L)	(C)		(FTU)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(CNT/100M)
15 5 81	1.5	NS	NS	NS	8.80	9.0	0.090	0.016	7.6	6.8	600.
19 5 81	1.5	NS	NS	7.14	40.00	3.0	0.285	0.032	8.0	7.3	840.
25 5 81	1.5	8.70	12.0	7.18	24.00	44.0	0.198	0.005	15.0	13.0	3100.
8 6 81	1.5	10.10	12.1	7.18	8.50	20.0	0.094	0.010	11.0	10.0	300.
15 6 81	1.5	10.40	14.1	7.98	1.80	11.0	0.081	0.009	7.2	NS	12.
22 6 81	1.5	8.30	12.9	7.07	6.70	83.0	0.248	0.041	10.0	7.7	1500.
25 6 81	1.5	9.20	12.8	8.07	NS	NS	NS	NS	NS	NS	0.
29 6 81	1.5	12.10	14.4	8.64	1.30	5.0	0.030	0.042	9.6	8.8	20.
1 7 81	1.5	10.80	14.0	8.04	NS	NS	NS	NS	NS	NS	0.
6 7 81	1.5	10.80	19.8	8.30	5.80	11.0	0.104	0.040	9.8	8.5	180.
8 7 81	1.5	8.40	20.9	7.70	NS	NS	NS	NS	NS	NS	0.
13 7 81	1.5	9.00	19.8	7.87	NS	NS	0.092	0.017	6.7	5.8	0.
15 7 81	1.5	9.10	15.3	8.07	NS	NS	NS	NS	NS	NS	0.
22 7 81	1.5	8.80	14.3	7.98	NS	NS	NS	NS	NS	NS	0.
23 7 81	1.5	8.00	16.0	8.30	12.10	16.0	0.078	0.016	3.6	3.2	735.
27 7 81	1.5	8.40	18.3	8.39	0.42	8.0	0.042	0.009	3.2	3.2	0.
31 7 81	1.5	20.10	20.1	8.47	NS	NS	NS	NS	NS	NS	0.
5 8 81	1.5	10.30	22.0	NS	NS	NS	NS	NS	NS	NS	0.
10 8 81	1.5	9.90	21.2	8.36	0.50	8.5	0.075	0.016	16.0	14.0	270.
17 8 81	1.5	6.70	19.1	7.99	1.66	48.2	0.142	0.012	5.8	4.6	950.
24 8 81	1.5	7.80	13.3	8.11	8.20	33.3	0.081	0.005	8.8	0.8	1500.
30 8 81	1.5	7.80	12.1	8.09	2.10	23.2	0.160	0.019	10.0	8.9	300.
4 10 81	1.5	7.60	11.0	8.06	NS	NS	NS	NS	NS	NS	0.
14 10 81	1.5	9.90	10.3	7.97	3.80	93.0	0.505	0.018	10.8	8.3	600.
21 10 81	1.5	8.30	10.0	7.97	1.80	18.8	0.278	0.051	9.7	9.1	*****
27 10 81	1.5	7.00	10.7	7.95	NS	NS	NS	NS	NS	NS	0.
30 10 81	1.5	8.70	9.1	7.91	17.60	22.0	0.302	0.022	4.1	3.4	0.
4 11 81	1.5	9.30	9.9	7.86	34.00	70.0	0.315	0.014	5.4	4.3	3000.
12 11 81	1.5	10.10	6.8	7.82	1.47	NS	0.478	0.055	2.5	2.1	*****
13 11 81	1.5	NS	NS	7.77	NS	NS	NS	NS	NS	NS	0.

DATE	DEPTH	PCB	HCB	BHC ALPHA	BHC GAMMA	BHC BETA	HEPACHOR	HEPE	ENDRIN	ENDOSULP I	[illegible]
D M Y	(M)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	20.0 LD	1.0 LD	7.0	4.0	1.0 LD	1.0 LD	1.0 LD	4. LD	2.0 LD	5.0 LD
19 5 81	1.5	25.00	1.00	1.0	1.0 LD	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.00	7.0	6.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.00	9.0	3.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.00	6.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	50.00	2.00	12.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 6 81	1.5	20.0 LD	1.0 LD	8.0	4.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	7.0	11.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	6.0	10.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	10.0	14.0	4.00	1.0 LD	1.0 LD	4.0 LD	2.0	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	8.0	23.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.00	2.00	9.0	11.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	35.00	1.0 LD	6.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.00	10.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.00	7.0	2.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.00	9.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	6.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 8 81	1.5	20.0 LD	1.0 LD	9.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	10.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	2.00	11.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.0 LD	5.0	4.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 10 81	1.5	20.0 LD	3.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.00	4.00	4.0	15.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	25.00	2.00	4.0	20.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	100.00	14.00	11.0	7.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	55.00	2.00	4.0	3.0	3.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	40.00	2.00	5.0	13.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.00	1.0 LD	5.0	17.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	2.00	6.0	17.0	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	ENDOSULP II	ALDRIN	DIELDRIN	PP-DDE	PP-DDT	PP-DDD	CHLORDANE ALPHA	CHLORDANE GAMMA	OXYCHLOR	MIREX
D M Y	(M)	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L	NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	10.00	1.0 LD	8.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.00	6.00	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.00	2.00	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	4.00	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.00	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.00	5.0 LD	5.0 LD	5.00	7.00	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	4.00	6.00	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE	DEPTH	LEAD	ZINC	COPPER	MERCURY	CADMIUM
D M Y	(M)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
15 5 81	1.5	0.005	0.011	0.006	NS	0.0002 LD
19 5 81	1.5	0.020	0.030	0.011	0.06 LD	0.0002 LD
25 5 81	1.5	0.003	0.023	0.005	NS	0.0002
8 6 81	1.5	0.003 LD	0.007	0.004	0.08 LD	0.0002 LD
15 6 81	1.5	0.003 LD	0.004	0.003	0.04 LD	0.0003
22 6 81	1.5	0.020	0.030	0.007	0.04 LD	0.0002 LD
25 6 81	1.5	0.004	0.008	0.003	0.06 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.003	0.002	0.08 LD	0.0002 LD
3 7 81	1.5	0.010	0.008	0.004	0.06 LD	0.0002 LD
6 7 81	1.5	0.005	0.008	0.007	NS	0.0002 LD
8 7 81	1.5	0.007	0.014	0.007	NS	0.0002 LD
13 7 81	1.5	0.011	0.015	0.006	0.10 LD	0.0002 LD
15 7 81	1.5	0.009	0.008	0.006	0.07 LD	0.0003
22 7 81	1.5	0.012	0.020	0.007	0.060	0.0004
23 7 81	1.5	0.012	0.011	0.004	0.050	0.0006
27 7 81	1.5	0.015	0.010	0.008	NS	0.0004
31 7 81	1.5	0.007	0.004	0.003	0.07 LD	0.0006
5 8 81	1.5	0.008	0.009	0.005	0.09 LD	0.0005
10 8 81	1.5	0.004	0.010	0.010	0.07 LD	0.0002 LD
17 8 81	1.5	0.008	0.022	0.011	0.06 LD	0.0002 LD
24 8 81	1.5	0.013	0.014	0.007	NS	0.0002
30 8 81	1.5	0.009	0.012	0.006	NS	0.0001 LD
4 10 81	1.5	0.007	0.006	0.022	NS	0.0002
14 10 81	1.5	0.009	0.007	0.009	0.290	0.0006
21 10 81	1.5	0.020	0.023	0.013	0.07 LD	0.0010
27 10 81	1.5	0.170	0.150	0.052	NS	0.0010
30 10 81	1.5	0.010	0.034	0.011	0.08 LD	0.0003
4 11 81	1.5	0.021	0.030	0.012	0.04 LD	0.0002
12 11 81	1.5	0.010	0.030	0.022	0.04 LD	0.0007
13 11 81	1.5	0.008	0.023	0.029	0.080	0.0021

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DATE D M Y	DEPTH (F)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100M)
15 5 81	1.5	NS	NS	NS	5.50	5.0	0.020	0.001	NS	NS	4.
19 5 81	1.5	NS	NS	7.21	2.20	3.0	0.023	0.001	2.6	2.4	4.
25 5 81	1.5	12.00	9.4	7.26	1.80	2.0	0.020	0.003	2.8	2.8	0.
1 6 81	1.5	12.70	8.5	7.23	2.00	1.0	0.017	0.001	1.9	1.5	2.
8 6 81	1.5	12.90	8.0	7.24	1.30	2.0	0.022	0.002	3.0	2.9	4.
10 6 81	1.5	11.70	7.9	7.26	NS	NS	NS	NS	NS	NS	0.
15 6 81	1.5	13.00	8.8	7.91	10.00	21.0	0.040	0.005	2.8	NS	1.
17 6 81	1.5	12.10	8.8	8.32	NS	NS	NS	NS	NS	NS	0.
22 6 81	1.5	11.90	11.9	7.57	1.00	3.0	0.021	0.001	3.9	3.5	18.
29 6 81	1.5	12.90	8.9	8.52	1.00	2.0	0.013	0.002	2.4	1.6	8.
3 7 81	1.5	11.20	13.0	8.31	NS	NS	NS	NS	NS	NS	0.
6 7 81	1.5	11.70	10.5	8.37	1.00	1.0	0.021	0.002	3.7	3.0	0.
8 7 81	1.5	10.80	11.3	8.37	NS	NS	NS	NS	NS	NS	0.
13 7 81	1.5	11.40	12.0	8.19	1.30	2.0	0.019	0.001	2.6	NS	0.
15 7 81	1.5	10.80	10.1	8.01	NS	NS	NS	NS	NS	NS	0.
22 7 81	1.5	11.10	15.0	8.52	NS	NS	NS	NS	NS	NS	0.
23 7 81	1.5	10.90	13.9	8.59	2.60	5.0	0.023	0.001	3.5	3.1	5.
27 7 81	1.5	8.80	17.9	8.62	0.53	2.0	NS	NS	1.8	1.3	0.
31 7 81	1.5	17.00	5.4	7.96	NS	NS	NS	NS	NS	NS	0.
6 8 81	1.5	10.20	20.1	8.62	NS	NS	NS	NS	NS	NS	0.
10 8 81	1.5	11.20	20.9	8.85	0.58	4.0	0.033	0.006	4.8	4.6	10.
17 8 81	1.5	8.70	19.0	8.42	1.42	7.0	0.032	0.005	4.5	3.9	52.
24 8 81	1.5	8.70	13.5	8.42	1.78	4.0	0.027	0.005	4.0	1.8	3.
30 8 81	1.5	10.40	8.0	8.23	1.80	5.3	0.028	0.002	NS	NS	4.
6 9 81	1.5	10.60	7.8	8.20	1.39	6.0	NS	NS	2.2	2.1	20.
8 9 81	1.5	8.20	6.9	8.20	NS	NS	NS	NS	NS	NS	0.
14 9 81	1.5	11.30	7.0	7.87	1.44	6.2	0.030	0.002	2.4	2.3	4.
21 9 81	1.5	4.40	7.0	8.21	3.80	10.3	0.027	0.003	4.7	4.5	20.
27 9 81	1.5	8.70	6.2	8.19	NS	NS	NS	NS	NS	NS	0.
30 9 81	1.5	9.70	7.3	8.02	10.10	10.0	0.032	0.002	NS	NS	0.
4 11 81	1.5	9.70	9.1	8.13	2.90	6.8	0.030	0.004	5.4	5.2	2.
12 11 81	1.5	11.70	7.3	8.02	1.26	NS	0.031	0.005	9.6	9.0	6.
13 11 81	1.5	NS	NS	8.01	NS	NS	NS	NS	NS	NS	0.

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULF I NG/L	[illegible] NG/L
15 5 81	1.5	20.0 LD	1.0 LD	2.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.0 LD	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	2.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	3.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	7.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	7.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.0 LD	7.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 9 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 9 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 9 81	1.5	20.0 LD	1.00	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 9 81	1.5	20.0 LD	1.0 LD	4.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 9 81	1.5	230.00	1.0 LD	5.0	2.0	4.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	20.0 LD	1.0 LD	7.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	1.0 LD	8.0	3.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	1.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	9.0	2.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE	DEPTH (M)	ENDOSULF II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	5.00	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 9 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (NG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.004	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.003	0.003	0.08 LD	0.0002 LD
25 5 81	1.5	0.009	0.001	0.002	NS	0.0002 LD
1 6 81	1.5	NS	NS	NS	0.08 LD	NS
8 6 81	1.5	0.003 LD	0.002	0.002	0.08 LD	0.0002 LD
10 6 81	1.5	0.003 LD	0.002	0.001 LD	0.06 LD	0.0005
15 6 81	1.5	0.003 LD	0.003	0.003	0.170	0.0002 LD
17 6 81	1.5	0.003 LD	0.002	0.003 LD	0.08 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.001 LD	0.001 LD	0.04 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.002	0.003	0.08 LD	0.0002 LD
3 7 81	1.5	0.004	0.002	0.003	0.06 LD	0.0002 LD
6 7 81	1.5	0.003 LD	0.002	0.002	NS	0.0002 LD
8 7 81	1.5	0.003 LD	0.003	0.004	NS	0.0002 LD
13 7 81	1.5	0.003 LD	0.002	0.003	0.10 LD	0.0002 LD
15 7 81	1.5	0.004	0.004	0.004	0.07 LD	0.0004
22 7 81	1.5	0.003	0.004	0.003	0.040	0.0002
23 7 81	1.5	0.003	0.003	0.003	0.04 LD	0.0001 LD
27 7 81	1.5	0.006	0.003	0.002	NS	0.0003
31 7 81	1.5	0.008	0.003	0.002	0.07 LD	0.0001 LD
6 8 81	1.5	0.004	0.004	0.004	0.09 LD	0.0002
10 8 81	1.5	0.003 LD	0.002	0.003	0.07 LD	0.0002 LD
17 8 81	1.5	0.003 LD	0.004	0.004	0.070	0.0002 LD
24 8 81	1.5	0.008	0.003	0.005	NS	0.0005
30 8 81	1.5	0.003 LD	0.001 LD	0.004	NS	0.0080
6 9 81	1.5	0.003 LD	0.005	0.005	NS	0.0004
8 9 81	1.5	0.003 LD	0.002	0.003	NS	0.0002 LD
14 9 81	1.5	0.013	0.012	0.009	NS	0.0005
21 9 81	1.5	0.011	0.008	0.007	0.07 LD	0.0009
27 9 81	1.5	0.004	0.004	0.002	0.08 LD	0.0003
30 9 81	1.5	0.012	0.009	0.004	0.08 LD	0.0008
4 11 81	1.5	0.006	0.003	0.004	0.04 LD	0.0002
12 11 81	1.5	0.009	0.004	0.005	0.04 LD	0.0004
13 11 81	1.5	0.003 LD	0.009	0.009	0.03 LD	0.0001 LD

STATION 2019

DATE D	M	Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
15	5	81	1.5	NS	NS	NS	2.10	3.0	0.035	0.002	9.1	9.0	88
19	5	81	1.5	NS	NS	7.24	1.50	4.0	0.036	0.004	NS	NS	4
25	5	81	1.5	12.20	1.1	7.35	0.97	3.0	0.024	0.005	10.0	5.6	2
1	6	81	1.5	12.70	10.5	NS	1.00	1.0	0.020	0.001	5.0	4.7	8
8	6	81	1.5	12.50	13.0	7.37	1.10	2.0	0.027	0.006	11.0	10.0	2
15	6	81	1.5	12.80	11.0	8.18	1.10	3.0	0.028	0.001	11.0	NS	4
22	6	81	1.5	12.30	12.2	7.54	0.56	1.0	0.020	0.001	4.9	4.5	12
29	6	81	1.5	13.20	11.1	8.64	0.50	3.0	0.026	0.017	8.0	7.9	2
6	7	81	1.5	11.80	16.8	7.74	1.50	2.0	0.037	0.005	5.9	5.4	17
13	7	81	1.5	11.50	19.2	8.35	0.90	NS	0.026	NS	6.0	4.0	0
23	7	81	1.5	10.40	15.0	NS	2.20	2.0	0.031	0.001	5.3	4.7	37
27	7	81	1.5	9.80	17.2	8.68	0.40	1.0	0.027	0.005	4.7	4.5	0
10	8	81	1.5	10.50	21.0	8.68	0.89	2.6	0.049	0.010	11.0	8.0	29
17	8	81	1.5	7.90	19.5	8.28	0.98	5.3	0.053	0.009	7.0	5.7	150
24	8	81	1.5	7.90	13.0	8.47	0.82	3.9	0.024	0.003	7.8	1.1	45
30	9	81	1.5	7.40	11.8	8.39	0.74	2.1	0.031	0.001	7.4	6.5	6
6	10	81	1.5	11.00	10.0	8.23	0.46	5.4	NS	NS	5.7	5.4	196
14	10	81	1.5	9.20	8.5	8.26	1.40	2.0	0.039	0.005	14.0	13.0	8
21	10	81	1.5	10.20	8.1	8.30	1.96	7.4	0.044	0.005	13.0	12.0	600
30	10	81	1.5	7.40	7.1	7.98	6.10	10.0	0.060	0.004	7.2	6.5	0
4	11	81	1.5	11.00	8.9	8.18	2.10	5.4	0.092	NS	16.0	15.0	10
12	11	81	1.5	11.60	7.5	8.08	0.92	NS	0.053	0.010	14.0	13.0	4

DATE D	M	Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	NG/L
15	5	81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
19	5	81	1.5	20.0 LD	1.0 LD	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25	5	81	1.5	20.0 LD	1.0 LD	5.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1	6	81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	2.0 LD	5.0 LD
8	6	81	1.5	20.0 LD	1.0 LD	4.0	1.0	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15	6	81	1.5	20.0 LD	2.00	8.0	2.0	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22	6	81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29	6	81	1.5	20.0 LD	1.0 LD	7.0	5.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6	7	81	1.5	20.0 LD	1.0 LD	6.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13	7	81	1.5	20.0 LD	1.0 LD	6.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23	7	81	1.5	20.0 LD	1.0 LD	2.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27	7	81	1.5	20.0 LD	1.0 LD	8.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10	8	81	1.5	20.0 LD	1.0 LD	8.0	2.0	4.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17	8	81	1.5	20.0 LD	1.0 LD	7.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24	8	81	1.5	20.0 LD	1.0 LD	1.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30	9	81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6	10	81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14	10	81	1.5	20.0 LD	1.0 LD	6.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21	10	81	1.5	20.0 LD	1.0 LD	4.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30	10	81	1.5	20.0 LD	1.0 LD	3.0	1.0 LD	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4	11	81	1.5	20.0 LD	1.0 LD	8.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12	11	81	1.5	20.0 LD	1.0 LD	7.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D	M	Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15	5	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19	5	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25	5	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1	6	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8	6	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15	6	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22	6	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29	6	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6	7	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13	7	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23	7	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27	7	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10	8	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17	8	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24	8	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30	9	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6	10	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14	10	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21	10	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30	10	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4	11	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12	11	81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

D	M	Y	(M)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
15	5	81	1.5	0.003 LD	0.004	0.004	NS	0.0008
19	5	81	1.5	0.003 LD	0.004	0.003	NS	0.0002
25	5	81	1.5	0.003 LD	0.006	0.006	NS	0.0002 LD
1	6	81	1.5	0.020	0.001	0.003	0.08 LD	0.0002 LD
8	6	81	1.5	0.003 LD	0.002	0.002	0.08 LD	0.0002 LD
15	6	81	1.5	0.003 LD	0.001	0.002	0.04 LD	0.0002 LD
22	6	81	1.5	0.003 LD	0.001 LD	0.001	0.04 LD	0.0002 LD
29	6	81	1.5	0.003 LD	0.010	0.002	0.08 LD	0.0002 LD
6	7	81	1.5	0.003 LD	0.002	0.002	NS	0.0002 LD
13	7	81	1.5	0.003 LD	0.002	0.002	0.10 LD	0.0002 LD
23	7	81	1.5	0.003 LD	0.005	0.003	0.060	0.0001
27	7	81	1.5	0.005	0.002	0.004	NS	0.0002
10	8	81	1.5	0.003 LD	0.014	0.009	0.120	0.0001
17	8	81	1.5	NS	NS	NS	0.060	NS
24	8	81	1.5	0.003 LD	0.004	0.004	NS	0.0003
30	9	81	1.5	0.005	0.003	0.003	NS	0.0001
6	10	81	1.5	0.008	0.008	0.011	NS	0.0004
14	10	81	1.5	0.012	0.011	0.009	NS	0.0004
21	10	81	1.5	0.012	0.007	0.006	0.07 LD	0.0011
30	10	81	1.5	0.008	0.010	0.003	0.08 LD	0.0006
4	11	81	1.5	0.005	0.004	0.005	0.04 LD	0.0001
12	11	81	1.5	0.006	0.006	0.006	0.04 LD	0.0003

STATION 2020

DATE D	M	Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBID. (FTU)	SUSP. SOLIDS. (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLORO-A TOTAL (UG/L)	CHLORO-A CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
29	6	81	1.0	5.60	18.8	7.93	1.30	13.0	0.233	0.145	3.6	2.8	150.
3	7	81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.
6	7	81	1.0	6.20	24.2	7.77	4.30	16.0	0.212	0.125	3.1	3.0	3000.
8	7	81	1.0	5.50	18.5	7.54	NS	NS	NS	NS	NS	NS	0.
13	7	81	1.0	6.20	24.2	7.87	3.10	13.0	0.375	0.160	3.9	3.2	0.
15	7	81	1.0	7.60	22.6	7.98	NS	NS	NS	NS	NS	NS	0.
22	7	81	1.0	7.00	26.0	7.95	NS	NS	NS	NS	NS	NS	0.
23	7	81	1.0	6.90	20.3	8.03	1.36	27.0	0.452	0.115	4.5	4.2	4300.
27	7	81	1.0	7.50	20.4	8.57	0.49	61.0	0.530	0.325	1.9	1.7	0.
31	7	81	1.0	5.50	19.5	8.11	NS	NS	NS	NS	NS	NS	0.
6	8	81	1.0	6.60	23.0	8.01	NS	NS	NS	NS	NS	NS	0.
10	8	81	1.0	6.10	20.8	NS	0.77	8.7	0.362	NS	NS	NS	4000.
17	8	81	1.0	7.80	17.2	7.99	1.86	27.6	NS	NS	7.7	7.1	2840.
24	9	81	0.5	8.20	14.8	8.10	1.55	9.6	0.090	0.025	4.1	2.1	2800.
30	9	81	0.5	8.70	11.0	8.07	1.62	17.4	0.485	0.485	2.3	1.8	300.
6	10	81	1.0	NS	NS	7.91	78.00	27.0	1.250	0.190	26.0	20.0	5000.
8	10	81	1.0	7.20	12.3	8.23	NS	NS	NS	NS	NS	NS	0.
14	10	81	0.5	5.60	11.4	8.01	1.43	5.9	0.240	0.026	NS	NS	1700.
21	10	81	0.4	9.40	10.0	8.01	1.42	36.6	0.630	0.087	9.5	8.7	1000.
27	10	81	1.0	7.60	10.9	8.06	NS	NS	NS	NS	NS	NS	0.
30	10	81	1.0	9.00	10.0	7.95	7.70	52.0	0.210	0.027	4.1	3.3	0.
4	11	81	1.0	9.30	10.9	7.84	2.20	9.9	0.320	0.025	0.8	0.5	700.
12	11	81	1.0	9.70	7.0	7.80	1.55	NS	0.530	0.079	2.7	2.1	2800.
13	11	81	1.0	NS	NS	7.70	NS	NS	NS	NS	NS	NS	0.

DATE D	M	Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	[illegible] NG/L
29	6	81	1.0	20.0 LD	1.0 LD	1.0	2.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3	7	81	0.0	25.00	3.00	1.0	66.0	1.0 LD	1.0 LD	1.0 LD	8.00	2.0 LD	5.0 LD
8	7	81	1.0	25.00	1.00	1.0	56.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0	5.0 LD
13	7	81	1.0	60.00	4.00	1.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15	7	81	1.0	30.00	7.00	1.0	18.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22	7	81	1.0	20.0 LD	2.00	9.0	12.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23	7	81	1.0	20.0 LD	4.00	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 L
27	7	81	1.0	20.00	11.00	1.0	5.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31	7	81	1.0	20.0 LD	7.00	19.0	9.0	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6	8	81	1.0	20.0 LD	2.00	13.0	7.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10	8	81	1.0	20.0 LD	3.00	1.0	8.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17	8	81	1.0	20.0 LD	8.00	1.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24	9	81	0.5	20.0 LD	1.0 LD	2.0	7.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30	9	81	0.5	75.00	3.00	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6	10	81	1.0	110.00	13.00	1.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8	10	81	1.0	20.0 LD	2.00	9.0	53.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14	10	81	0.5	20.0 LD	1.0 LD	3.0	11.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21	10	81	0.4	20.0 LD	1.0 LD	2.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27	10	81	1.0	20.0 LD	1.0 LD	3.0	1.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30	10	81	1.0	20.0 LD	1.0 LD	4.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4	11	81	1.0	20.0 LD	2.00	4.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12	11	81	1.0	20.0 LD	1.00	5.0	17.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13	11	81	1.0	20.0 LD	3.00	4.0	22.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D	M	Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
29	6	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3	7	81	0.00	4.0 LD	1.0 LD	10.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.00	2.0 LD	5.0 LD
8	7	81	1.0 LD	4.00	1.0 LD	12.00	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	3.00	3.00	2.0 LD	5.0 LD
23	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.00	2.0 LD	5.0 LD
27	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.00	5.00	2.0 LD	5.0 LD
31	7	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6	8	81	1.0 LD	6.00	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10	8	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.00	2.00	2.0 LD	5.0 LD
17	8	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24	9	81	0.50	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30	9	81	0.50	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6	10	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8	10	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14	10	81	0.50	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21	10	81	0.40	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27	10	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30	10	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4	11	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12	11	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13	11	81	1.0 LD	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D	M	Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
29	6	81	1.0	0.004	0.019	0.007	0.08 LD	0.0002 LD
3	7	81	NS	0.010	0.017	0.008	NS	0.0002 LD
6	7	81	1.0	0.003 LD	0.019	0.009	NS	0.0002 LD
8	7	81	1.0	0.050	0.023	0.012	NS	0.0002 LD
13	7	81	1.0	0.010	0.020	0.008	0.10 LD	0.0003
15	7	81	1.0	0.013	0.019	0.010	0.07 LD	0.0003
22	7	81	1.0	0.063	0.022	0.008	0.040	0.0010
23	7	81	1.0	0.012	0.023	0.008	NS	0.0001 LD
27	7	81	1.0	0.013	0.022	0.008	NS	0.0006
31	7	81	1.0	0.009	0.023	0.008	NS	0.0005
6	8	81	1.0	0.010	0.020	0.009	0.09 LD	0.0004
10	8	81	1.0	0.004	0.029	0.011	NS	0.0002 LD
17	8	81	1.0	0.009	0.031	0.012	0.06 LD	0.0002 LD
24	9	81	0.5	0.036	0.016	0.010	NS	0.0001
30	9	81	0.5	0.009	0.015	0.010	NS	0.0001 LD
6	10	81	1.0	0.200	0.230	0.069	NS	0.0008
8	10	81	1.0	NS	NS	NS	NS	NS
14	10	81	0.5	NS	NS	NS	NS	NS
21	10	81	0.4	0.032	0.047	0.021	0.07 LD	0.0007
27	10	81	1.0	0.160	0.150	0.045	NS	0.0013
30	10	81	1.0	0.017	0.040	0.015	0.08 LD	0.0001
4	11	81	1.0	0.012	0.019	0.016	0.04 LD	0.0002
12	11	81	1.0	0.020	0.026	0.021	0.040	0.0008
13	11	81	1.0	0.003 LD	0.001	0.002	0.06 LD	0.0001 LD

STATIONS 2026, 2027, 2028

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	DDT NG/L
8 10 81	1.5	20.0 LD	1.0 LD	5.0	3.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	10.0	5.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	9.0	3.0	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
8 10 81	1.5	0.004	0.005	0.010	NS	0.0004
27 10 81	1.5	0.016	0.015	0.009	0.08 LD	0.0004
13 11 81	1.5	0.010	0.008	0.010	0.03 LD	0.0001 LD

STATION # = 2027

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	DDT NG/L
8 10 81	1.5	20.0 LD	1.0 LD	6.0	2.0	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	10.0	5.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
8 10 81	1.5	0.003 LD	0.004	0.006	NS	0.0002
27 10 81	1.5	0.006	0.007	0.002	0.08 LD	0.0002
13 11 81	1.5	0.011	0.008	0.010	0.03 LD	0.0001 LD

STATION # = 2028

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULP I NG/L	DDT NG/L
8 10 81	1.5	20.0 LD	1.0 LD	2.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	5.0	5.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	5.0	1.0	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULP II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
8 10 81	1.5	0.003	0.033	0.004	0.290	0.0002
27 10 81	1.5	0.007	0.007	0.006	0.080	0.0002
13 11 81	1.5	0.008	0.009	0.010	0.060	0.0001

STATION 2029

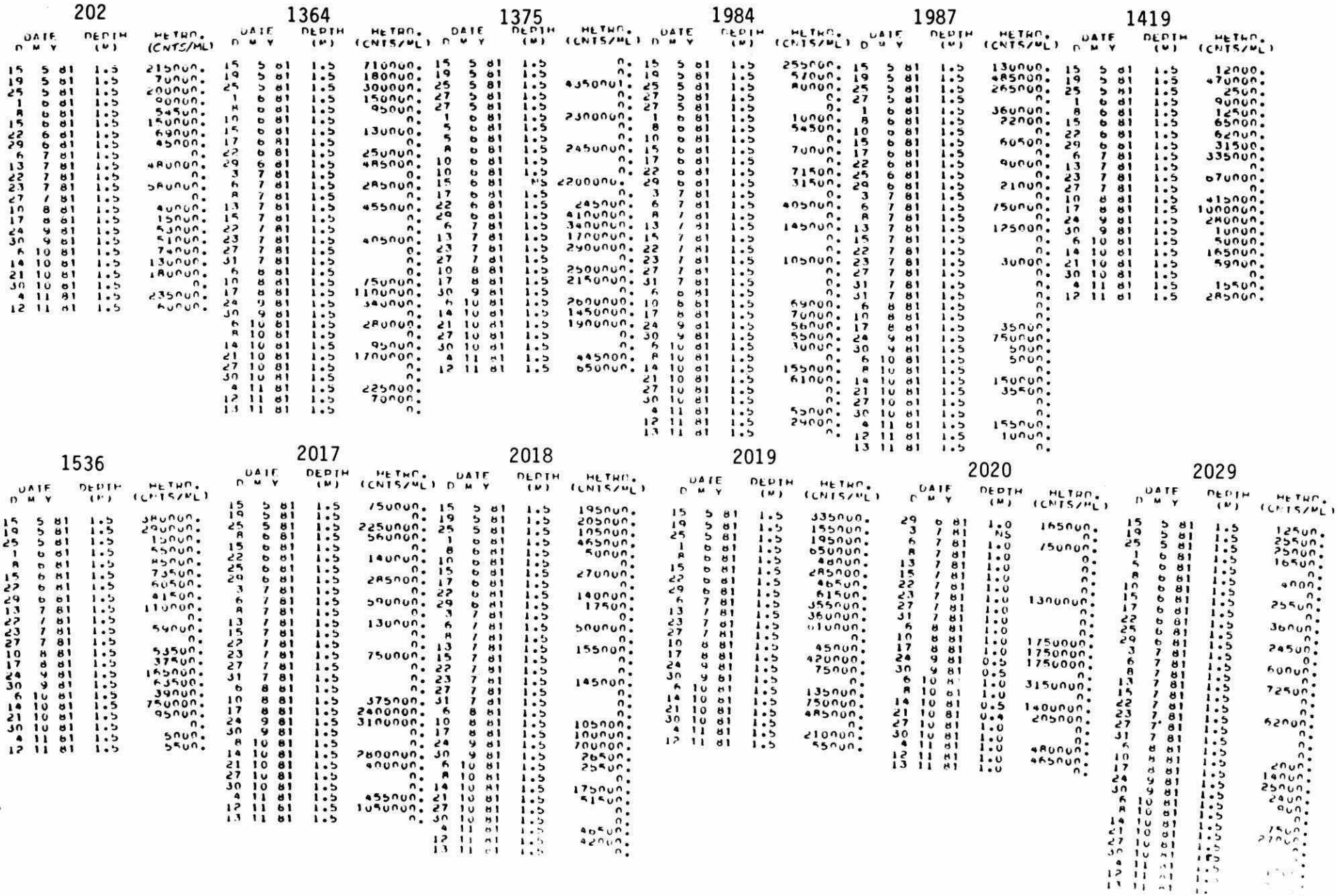
DATE D M Y	DEPTH (M)	DISS. OXYGEN (MG/L)	WATER TEMP. (C)	PH	TURBTD. (FTU)	SUSP. SOLIDS (MG/L)	TOTAL PHOSP. (MG/L)	REACT. PHOSP. (MG/L)	CHLOROPH TOTAL (UG/L)	CHLOROPH CORRECT (UG/L)	FECAL COLIFORM (CNT/100ML)
15 5 81	1.5	NS	NS	NS	0.70	1.0	0.014	0.001	NS	NS	4.
19 5 81	1.5	NS	NS	7.03	0.75	1.0	0.012	0.001	3.0	2.8	2.
25 5 81	1.5	12.40	10.0	7.17	0.62	1.0	0.015	0.003	2.5	2.5	2.
1 6 81	1.5	12.80	6.6	7.24	1.00	1.0 LD	0.012	0.001	3.1	2.7	2.
5 6 81	1.5	13.50	10.0	7.30	NS	NS	NS	NS	NS	NS	0.
8 6 81	1.5	12.90	8.9	7.16	0.69	1.0	0.017	0.003	2.2	2.1	2.
10 6 81	1.5	12.40	8.5	7.19	NS	NS	NS	NS	NS	NS	0.
15 6 81	1.5	13.50	8.1	7.25	0.60	1.0	0.014	0.001	2.0	1.9	0.
17 6 81	1.5	13.20	5.0	8.36	NS	NS	NS	NS	NS	NS	0.
22 6 81	1.5	12.10	12.9	7.77	0.47	1.0 LD	0.015	0.001	3.4	3.2	2.
25 6 81	1.5	12.70	9.0	8.50	NS	NS	NS	NS	NS	NS	0.
29 6 81	1.5	12.60	9.9	7.96	0.54	1.0 LD	0.011	0.001	1.6	1.2	2.
3 7 81	1.5	12.00	13.6	NS	NS	NS	NS	NS	NS	NS	0.
6 7 81	1.5	12.80	15.4	7.95	1.20	1.0 LD	0.019	0.001	5.9	5.5	2.
8 7 81	1.5	12.10	15.0	8.28	NS	NS	NS	NS	NS	NS	0.
13 7 81	1.5	11.30	13.8	8.08	0.65	1.0 LD	0.019	0.001	1.3	1.3	0.
15 7 81	1.5	11.30	9.8	8.00	NS	NS	NS	NS	NS	NS	0.
22 7 81	1.5	12.00	16.0	8.65	NS	NS	NS	NS	NS	NS	0.
23 7 81	1.5	11.50	15.8	8.69	0.80	1.0 LD	0.020	0.001	2.6	2.2	1.
27 7 81	1.5	9.90	18.9	8.64	0.49	1.0	0.013	0.002	2.0	1.8	0.
31 7 81	1.5	8.30	19.1	8.48	NS	NS	NS	NS	NS	NS	0.
6 8 81	1.5	10.50	20.0	8.82	NS	NS	NS	NS	NS	NS	2.
10 8 81	1.5	10.90	20.8	8.67	0.85	1.6	0.023	0.004	7.8	7.2	0.
17 8 81	1.5	9.80	18.9	8.60	0.75	1.7	0.022	0.003	4.0	3.8	1.
24 8 81	1.5	9.10	14.5	8.43	1.12	2.2	0.019	0.003	5.1	4.7	1.
30 8 81	1.5	11.00	9.0	8.08	0.57	0.4	0.023	0.003	1.5	1.4	0.
6 10 81	1.5	11.50	7.0	8.23	0.20	4.1	NS	NS	NS	NS	0.
8 10 81	1.5	9.90	6.9	8.13	NS	NS	NS	NS	NS	NS	0.
14 10 81	1.5	11.90	6.5	8.15	0.43	1.0	0.022	0.002	NS	NS	4.
21 10 81	1.5	10.80	9.0	8.10	0.39	1.1	0.017	0.011	1.5	1.3	0.
27 10 81	1.5	10.50	9.9	8.18	NS	NS	NS	NS	NS	NS	0.
30 10 81	1.5	11.00	8.1	8.09	1.02	4.0	0.022	0.003	6.1	6.1	0.
4 11 81	1.5	8.30	9.0	8.17	0.44	1.0	0.019	0.001	0.2	3.4	0.
12 11 81	1.5	11.00	7.2	7.98	1.30	9.0	0.023	0.003	6.9	6.4	10.
13 11 81	1.5	NS	NS	7.97	NS	NS	NS	NS	NS	NS	NS

DATE D M Y	DEPTH (M)	PCB NG/L	HCB NG/L	BHC ALPHA NG/L	BHC GAMMA NG/L	BHC BETA NG/L	HEPACHLOR NG/L	HEPE NG/L	ENDRIN NG/L	ENDOSULF I NG/L	DDT NG/L
15 5 81	1.5	20.0 LD	4.00	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	LD	2.0 LD	5.0 LD
19 5 81	1.5	20.0 LD	1.0 LD	2.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	20.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	2.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
25 6 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	20.0 LD	1.00	4.0	2.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	20.0 LD	1.0 LD	4.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	20.0 LD	1.0 LD	7.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	20.0 LD	1.0 LD	7.0	3.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	20.0 LD	1.0 LD	6.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	20.0 LD	1.0 LD	5.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	20.0 LD	1.0 LD	5.0	1.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	20.0 LD	1.0 LD	4.0	1.0 LD	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	20.0 LD	1.0 LD	3.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	20.0 LD	1.0 LD	1.0	1.00	1.0 LD	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	20.0 LD	1.0 LD	4.0	2.00	1.00	1.0 LD	1.0 LD	4.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	ENDOSULF II NG/L	ALDRIN NG/L	DIELDRIN NG/L	PP-DDE NG/L	PP-DDT NG/L	PP-DDD NG/L	CHLORDANE ALPHA NG/L	CHLORDANE GAMMA NG/L	OXYCHLOR NG/L	MIREX NG/L
15 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
19 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 5 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
1 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
5 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	0.00	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
25 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
29 6 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
3 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
15 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
22 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
23 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
31 7 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
10 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
17 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
24 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 8 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
6 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
8 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
14 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
21 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
27 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
30 10 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
4 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
12 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD
13 11 81	1.5	4.0 LD	1.0 LD	2.0 LD	1.0 LD	5.0 LD	5.0 LD	2.0 LD	2.0 LD	2.0 LD	5.0 LD

DATE D M Y	DEPTH (M)	LEAD (MG/L)	ZINC (MG/L)	COPPER (MG/L)	MERCURY (MG/L)	CADMIUM (MG/L)
15 5 81	1.5	0.003 LD	0.002	0.003	NS	0.0002 LD
19 5 81	1.5	0.003 LD	0.004	0.003	0.08 LD	0.0002 LD
25 5 81	1.5	0.008	0.010	0.003	NS	0.0002 LD
1 6 81	1.5	0.009	0.001	0.001 LD	0.04 LD	0.0002 LD
5 6 81	1.5	0.003 LD	0.001	0.002	0.06 LD	0.0002 LD
8 6 81	1.5	0.003 LD	0.003	0.003	0.08 LD	0.0002 LD
10 6 81	1.5	0.004	0.006	0.003	0.06 LD	0.0007
15 6 81	1.5	0.003 LD	0.002	0.002	0.04 LD	0.0002 LD
17 6 81	1.5	0.003 LD	0.001	0.002	0.05 LD	0.0002 LD
22 6 81	1.5	0.003 LD	0.002	0.001	0.050	0.0002 LD
25 6 81	1.5	0.003 LD	0.004	0.059	0.07 LD	0.0002 LD
29 6 81	1.5	0.003 LD	0.002	0.003	0.08 LD	0.0002
3 7 81	1.5	0.004	0.004	0.001	0.06 LD	0.0002 LD
6 7 81	1.5	0.003 LD	0.002	0.002	NS	0.0002 LD
8 7 81	1.5	0.003 LD	0.001	0.003	NS	0.0002 LD
13 7 81	1.5	0.003 LD	0.002	0.002	0.10 LD	0.0002 LD
15 7 81	1.5	0.003 LD	0.004	0.005	0.07 LD	0.0004
22 7 81	1.5	0.003 LD	0.004	0.003	0.080	0.0003
23 7 81	1.5	0.005	0.005	0.003	0.04 LD	0.0003
27 7 81	1.5	NS	NS	NS	NS	NS
31 7 81	1.5	0.006	0.009	0.003	NS	0.0003
6 8 81	1.5	0.005	0.008	0.006	0.09 LD	0.0004
10 8 81	1.5	0.003 LD	0.004	0.002	0.07 LD	0.0002 LD
17 8 81	1.5	0.003 LD	0.031	0.004	0.06 LD	0.0002 LD
24 8 81	1.5	0.006	0.017	0.005	NS	0.0004
30 8 81	1.5	0.004	0.014	0.003	NS	0.0001
6 10 81	1.5	0.003 LD	0.003	0.004	NS	0.0001 LD
8 10 81	1.5	0.003 LD	0.001 LD	0.004	NS	0.0001
14 10 81	1.5	0.006	0.005	0.007	NS	0.0005
21 10 81	1.5	0.009	0.007	0.006	0.070	0.0011
27 10 81	1.5	0.003 LD	0.003	0.001	0.06 LD	0.0002 LD
30 10 81	1.5	0.004	0.010	0.004	0.08 LD	0.0006
4 11 81	1.5	0.003 LD	0.001 LD	0.004	0.04 LD	0.0001
12 11 81	1.5	0.005	0.005	0.004	0.06 LD	0.0003
13 11 81	1.5	0.003 LD	0.007	0.004	0.03 LD	0.0001

HETEROTROPHIC BACTERIA (count/mL)



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MEMORANDUM

TO: Directors

FROM: D.N. Jeffs, Director
Water Resources Branch

RE: "A SUMMARY REPORT ON THE EFFECTS OF DREDGING, DREDGED SPOILS DISPOSAL AND LAKEFILLING ACTIVITIES ON WATER QUALITY IN THE TORONTO WATERFRONT MARCH 8 - NOVEMBER 29, 1981"

Attached is a copy of the "1981 Keating Channel Report" which has been prepared for release by the Water Resources Branch. The report updates information presented in the "1980 Keating Channel Report" published in November 1981 and has been reviewed by Central Region staff.

This publication summarizes the results of the 1981 Toronto waterfront sampling program and adds to the existing data base for assessing the effects of dredging and lakefilling activities on the water quality in the Toronto waterfront. As in previously published reports, these data suggest that short-term effects were localized and have not led to any adverse effects on Toronto waterfront water quality or drinking water supplies.

Please advise if further copies of the report are required by your staff.

Don Jeffs

DB/db
attach.

cc: D.E. Redgrave

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